

Exhibit 21

April 30, 2008

Ms. Jessica McClain
EDR
440 Wheelers Farms Road
Milford, CT 06461

Subject: REFERENCE #: 02179467.1
MT. DIABLO QUICKSILVER MINE
SUMMIT RD.
CLAYTON, CA 94517

Dear: Ms. McClain:

Public records on the subject real property identified above revealed the following information effective to April 18, 2008:

PROPERTY REPORT

ASSESSMENT

TRACT NO. 1

Location: Contra Costa County

Land/Description: Parcel of Land
Parcel No. 078-070-036

TRACT NO. 2

Location: Contra Costa County

Land/Description: Parcel of Land
Parcel No. 078-060-034

Financial Investigative Services

Mailing Address: 3850 N. Causeway Blvd., 3rd Floor, Metairie, Louisiana 70002
(National Toll Free) 1/800/755-0435 | (Louisiana) 504/837-6320 | FAX # 1/504/835-2872

DEEDS

TRACT NO. 1

1

Grantee(s): Mt. Diablo Springs Improvement Society
(Buyer)

Grantor(s): Jack Wessman a/k/a John and Carolyn Wessman
(Seller)

Conveys: Parcel of Land

Date Executed: December 30, 2005
Date Recorded: December 30, 2005
Document Number: 500282

NOTE: Copy attached as Exhibit "A."

2

Grantee(s): Jack Wessman and Carolyn Wessman
(Buyer)

Grantor(s): Guadalupe Mining Company
(Seller)

Conveys: Parcel of Land

Date Executed: July 2, 1974
Date Recorded: July 2, 1974
DBV/PG: 7265/266

3

Grantee(s): Guadalupe Mining Company
(Buyer)

Grantor(s): Victoria Resources Corporation
(Seller)

Conveys: Parcel of Land

Date Executed: December 9, 1969
Date Recorded: December 9, 1969
DBV/PG: 6020/207

4
Grantee(s): Victoria Resources Corporation
(Buyer)

Grantor(s): Victor Blomberg, Margaret Z. Brown, Trustees for Fred Zumwalt
(Seller) under Trust Agreement dated May 18, 1959; Leland D. Nickerson,
Luella W. Long and May Perdue

Conveys: Parcel of Land

Date Executed: May 11, 1962
Date Recorded: May 11, 1962
DBV/PG: 4117/535

5
Grantee(s): Margaret Z. Brown, Trustee for Fred Zumwalt under Trust
(Buyer) Agreement dated May 18, 1959

Grantor(s): Fred Zumwalt
(Seller)

Conveys: Parcel of Land

Date Executed: May 11, 1962
Date Recorded: May 11, 1962
DBV/PG: 4117/533

NOTE: Trust Transfer under Trust Agreement dated May 18, 1959.

EXAMINER'S NOTE

Public records of Contra Costa County, California were searched from January 1, 1858 to April 18, 2008, and no other deeds vesting title into the name of Zumwalt was found of record during the period searched.

LEGAL DESCRIPTION

Legal Description included on Exhibit "A."

TRACT NO. 2

1
Grantee(s): Jack Wessman and Carolyn F. Wessman, Trustees of the Wessman
(Buyer) Family Trust under Declaration of Trust dated May 10, 2005

Grantor(s): Jack Wessman and Carolyn Wessman
(Seller)

Conveys: Parcel of Land

Date Executed: May 10, 2005
Date Recorded: May 31, 2005
Document Number: 194835

NOTE: Copy attached as Exhibit "B".

2
Grantee(s): Jack Wessman and Carolyn Fay Wessman
(Buyer)

Grantor(s): John Barrett Wessman and Carolyn Faye Wessman who acquired
(Seller) title as Jack Wessman and Carolyn Wessman

Conveys: Parcel of Land

Date Executed: April 18, 2002
Date Recorded: April 18, 2002
Document Number: 137148

3
Grantee(s): Jack Wessman and Carolyn Wessman
(Buyer)

Grantor(s): Guadalupe Mining Company
(Seller)

Conveys: Parcel of Land

Date Executed: July 2, 1974
Date Recorded: July 2, 1974
DBV/PG: 7265/266

4
Grantee(s): Guadalupe Mining Company
(Buyer)

Grantor(s): Victoria Resources Corporation
(Seller)

Conveys: Parcel of Land

Date Executed: December 9, 1969
Date Recorded: December 9, 1969
DBV/PG: 6020/207

5
Grantee(s): Victoria Resources Corporation
(Buyer)

Grantor(s): Mt. Diablo Quicksilver Company, Ltd.
(Seller)

Conveys: Parcel of Land

Date Executed: October 14, 1960
Date Recorded: October 14, 1960
DBV/PG: 3723/551

PARCEL NO. 1

1
Grantee(s): Mt. Diablo Quicksilver Company, Ltd.
(Buyer)

Grantor(s): V. Blumberg a/k/a V. Blomberg and Anna Blomberg and A.E.
(Seller) Moni and Emma Moni

Conveys: Parcel of Land

Date Executed: January 17, 1936
Date Recorded: January 17, 1936
DBV/PG: 401/241

NOTE 1: Quitclaim Deed to release interest in Lease and Assignment of Lease.

NOTE 2: Lease by and between Joseph Tonge, as Lessor and N. C. Hardy, V. Blumberg and A. E. Moni, as Lessor's recorded January 14, 1930.

NOTE 3: Assignment of Lease by and between N. C. Hardy and Mae Hardy, as Assignor's and V. Blumberg and A. E. Moni, as Assignee's recorded March 8, 1930 at DBV 225. PG 198.

EXAMINER'S NOTE

Public records of Contra Costa County, California were searched from January 1, 1858 to April 18, 2008, and no other deeds vesting title were found of record during the period searched. Tonge Estate owned prior to 1858.

PARCEL NO. 2

1
Grantee(s): Mt. Diablo Quicksilver Company, Ltd.
(Buyer)

Grantor(s): Edward A. Howard and Daisy B. Howard
(Seller)

Conveys: Parcel of Land

Date Executed: February 1, 1934
Date Recorded: February 1, 1934
DBV/PG: 354/414

CHAIN NO. 1

1
Grantee(s): Edward A. Howard
(Buyer)

Grantor(s): Henry Phillips and Jessie Mabel Phillips
(Seller)

Conveys: Parcel of Land

Date Executed: May 31, 1923
Date Recorded: May 31, 1923
DBV/PG: 431-D/460

EXAMINER'S NOTE

Public records of Contra Costa County, California were searched from January 1, 1858 to April 18, 2008, and no other deeds vesting title were found of record during the period searched. Phillips Estate owned prior to 1858.

CHAIN NO. 2

1

Grantee(s): Edward A. Howard
(Buyer)

Grantor(s): Frances C. Hunsaker f/k/a Frances C. Hastings
(Seller)

Conveys: Parcel of Land

Date Executed: October 25, 1907
Date Recorded: October 25, 1907
DBV/PG: 131/11

2

Grantee(s): Frances C. Hastings
(Buyer)

Grantor(s): Lyman H. Hastings
(Seller)

Conveys: Parcel of Land

Date Executed: June 17, 1874
Date Recorded: June 17, 1874
DBV/PG: 26-D/429

EXAMINER'S NOTE

Public records of Contra Costa County, California were searched from January 1, 1858 to April 18, 2008, and no other deeds vesting title were found of record during the period searched. Hastings Estate owned prior to 1858.

CHAIN NO. 3

1

Grantee(s): Edward A. Howard
(Buyer)

Grantor(s): William Ryder Powell
(Seller)

Conveys: Parcel of Land

Date Executed: July 27, 1905
Date Recorded: July 27, 1905
DBV/PG: 112-D/489

NOTE: Decree of Distribution.

2

Grantee(s): William R. Powell
(Buyer)

Grantor(s): W.M. Mullen
(Seller)

Conveys: Parcel of Land

Date Executed: April 29, 1849
Date Recorded: April 29, 1849
DBV/PG: 2MISC/16

NOTE: Mining Claim.

EXAMINER'S NOTE

Public records of Contra Costa County, California were searched from January 1, 1858 to April 18, 2008, and no other deeds vesting title in the subject property were found of record during the period searched. A copy of the mining claim will be forwarded to you upon receipt.

LEGAL DESCRIPTION

Legal Description included on Exhibit "B."

ENTIRE SITE LEGAL DESCRIPTION

Legal Description included on Exhibit "A" and Exhibit "B."

We hope this information assists in your decision making process. If we can be of additional assistance, please do not hesitate to contact us at your convenience.

Cordially,

NCO FINANCIAL SYSTEMS, INC.
FINANCIAL INVESTIGATIVE SERVICES

Rachel Prince
Title Analyst

RP/jp
cc: Chris Naquin

NCO File #798590

TERMS AND CONDITIONS

USE OF THIS REPORT: THIS REPORT CONTAINS INFORMATION OBTAINED FROM PUBLIC LAND RECORDS AND NCO FINANCIAL SYSTEMS, INC. - FINANCIAL INVESTIGATIVE SERVICES MAKES NO REPRESENTATION CONCERNING THE ACCURACY OF SAID PUBLIC RECORD INFORMATION OR THE INFORMATION CONTAINED IN THIS REPORT. THIS REPORT IS NOT AN ABSTRACT OR OPINION OF TITLE, TITLE COMMITMENT OR GUARANTEE, OR TITLE INSURANCE POLICY. THIS REPORT IS PROVIDED TO YOU AS A NCO FINANCIAL SYSTEMS, INC. - FINANCIAL INVESTIGATIVE SERVICES CUSTOMER AND IS NOT INTENDED FOR BENEFIT OF ANY THIRD PARTY.

LIMITATION OF LIABILITY: NCO FINANCIAL SYSTEMS, INC. - FINANCIAL INVESTIGATIVE SERVICES MAKES NO WARRANTY WITH RESPECT TO THIS REPORT. IF ANY INFORMATION CONTAINED IN THIS REPORT IS INACCURATE, YOU AGREE THAT NCO FINANCIAL SYSTEMS, INC. - FINANCIAL INVESTIGATIVE SERVICES' LIABILITY TO YOU IS LIMITED TO THE PRICE OF THIS REPORT. NCO FINANCIAL SYSTEMS, INC. - FINANCIAL INVESTIGATIVE SERVICES SHALL HAVE NO LIABILITY TO ANY THIRD PARTY UNDER ANY CIRCUMSTANCES. IN NO EVENT SHALL NCO FINANCIAL SYSTEMS, INC. - FINANCIAL INVESTIGATIVE SERVICES BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES EVEN IF ADVISED THAT SUCH DAMAGES ARE POSSIBLE OR LIKELY.

EXHIBIT A

Recording Requested By

AND WHEN RECORDED MAIL TO:

Name Mt. Diablo Springs
Improvement Society
 Street 2764 Lake Sahara Dr
 Address Suite 111
 City & Las Vegas NV 89117
 State

CONTRA COSTA Co Recorder Office
 STEPHEN L. WEIR, Clerk-Recorder

DOC- 2005-0500282-00

Friday, DEC 30, 2005 11:43:49

SUR \$10.00 CPY \$2.00 MIC \$1.00
 MOD \$2.00 REC \$8.00 TCF \$1.00

Ttl Pd \$22.00

Nbr-0003054362
 lrc/R9/1-2

SPACE ABOVE THIS LINE FOR RECORDER'S USE

INDIVIDUAL GRANT DEED

The undersigned grantor (s) declare (s):

Documentary transfer tax is \$ giftCity transfer tax is \$ 078 070 036

() computed on full value of property conveyed, or

() computed on full value less value of liens and encumbrances remaining at time of sale.

(X) Unincorporated area: () City of , and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
Jack Wessman AKA John + Carolyn Wessman, His Wifehereby GRANT(s) to Mt. Diablo Springs Improvement Societythe following described real property ^{near} in the City ofState of California: See attached Deed Description, County of Contra CostaDated December 30/2005

STATE OF CALIFORNIA,

COUNTY OF Contra Costa) SS.On December 30/2005 before me,Susan Saakian, personally appearedJack Wessman & Carolyn Wessman

~~personally known to me~~ (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

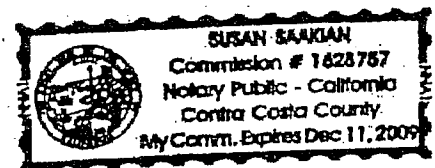
Signature Susan Saakian

MAIL TAX SAME AS ABOVE
 STATEMENTS TO: _____

NAME

ADDRESS

CITY, STATE, ZIP



(This area for official notarial seal)

500282

LEGAL DESCRIPTION

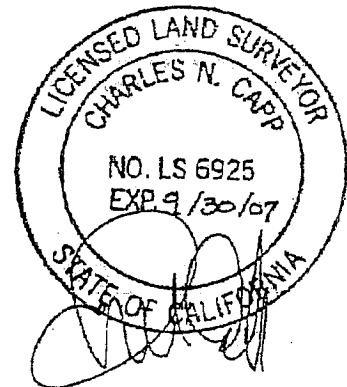
"EXHIBIT A"

All that real property situate in the unincorporated area of the County of Contra Costa, State of California, described as follows:

That portion of the Northwest Quarter of the Southwest Quarter of Section 28, Township 1 North, Range 1 East, Mount Diablo Base & Meridian, lying West of the center line of the County Road known as "Morgan Territory Road", as said road is described within a deed from E. A. Howard, et ux, to Contra Costa County, dated April 4, 1928, recorded June 11, 1928 in Book 140, of Official Records, at Page 125, Contra Costa County Records.

Excepting therefrom the above described property

1. The North 540.00 feet of the land described within a deed from Jack Wessman and Carolyn Wessman, his wife as joint tenants to Frank Meyer and Ellen Meyer, his wife as joint tenants, filed February 28, 1977 in Book 8220 of Official Records, at Page 688, Contra Costa County Records.
2. "A strip of land forty feet in width, parallel and adjacent to and westerly of the County Road" as reserved in the deed from Edward A. Howard, Jr., et al, to Victor Blomberg, et ux, dated September 22, 1958, recorded October 9, 1958 in Book 3242 of Official Records, at Page 279, Contra Costa County Records, but not excepting, however, the right to haul across said strip of land and to maintain fences and locked gates thereon.
3. The interest conveyed to Contra Costa County by deed from E.A. Howard, et ux, dated April 4, 1928.



End of Document

Exhibit 22



Linda S. Adams
Secretary for
Environmental
Protection

California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>

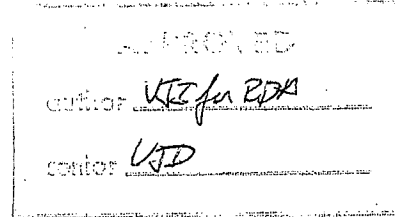


Arnold
Schwarzenegger
Governor

FILE COPY

20 November 2008

Ms. Janet Yocum
U.S. Environmental Protection Agency
Mail Code: SFD-9-2
75 Hawthorne Street
San Francisco, CA 94105



REQUEST FOR FEDERAL ACTION, MOUNT DIABLO MINE, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, Central Valley Region (Regional Water Board) is requesting the U.S. Environmental Protection Agency take federal action to prevent catastrophic failure of the settling pond dam at Mount Diablo Mine in Contra Costa County. Mount Diablo Mine is a historic mercury mine with ongoing discharges of mercury-contaminated water into a settling pond. The integrity of the settling pond is threatened by a large scour feature developing at the base of the impoundment dam. This scour was caused by Marsh Creek eroding the base of the dam. If this dam fails, a large amount of mercury laden sediment would be discharged down Marsh Creek.

During an August 2008 site inspection, Regional Water Board observed the dam and it appeared to be on the brink of failure. The Regional Water Board is requesting federal action at this time to prevent the dam failure, which would cause the release of mercury-laden soils.

This Request for Federal Action (attached) is only the first step necessary to start remediation at the Mount Diablo Mine. We look forward to a cooperative and mutually beneficial relationship working toward cleanup at the Mount Diablo Mine.

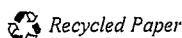
WILLIAM J. MARSHALL, Chief
Landfill, Mines & Storm Water Permitting

Attachment: Request for Federal Action

cc: Karl E. Longley, Chair, Central Valley Regional Water Quality Control Board
Lori Okun, OCC, State Water Resource Control Board, Sacramento
John Hillenbrand, USEPA, San Francisco
Larry Bradfish, USEPA, San Francisco
Mitch Avalon, Contra Costa County Flood Control, Martinez

RDA:W:\atkinsr\mydocuments\MtDiablo\EPA_EmergencyRespond.doc

California Environmental Protection Agency





Linda S. Adams
Secretary for
Environmental
Protection

California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>



Arnold
Schwarzenegger
Governor

20 November 2008

Ms. Janet Yocum
U.S. Environmental Protection Agency
Mail Code: SFD-9-2
75 Hawthorne Street
San Francisco, CA 94105

REQUEST FOR FEDERAL ACTION, MOUNT DIABLO MINE, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, Central Valley Region (Regional Water Board) is requesting the U.S. Environmental Protection Agency take federal action to prevent catastrophic failure of the settling pond dam at Mount Diablo Mine in Contra Costa County. Mount Diablo Mine is a historic mercury mine with ongoing discharges of mercury-contaminated water into a settling pond. The integrity of the settling pond is threatened by a large scour feature developing at the base of the impoundment dam. This scour was caused by Marsh Creek eroding the base of the dam. If this dam fails, a large amount of mercury laden sediment would be discharged down Marsh Creek.

During an August 2008 site inspection, Regional Water Board observed the dam and it appeared to be on the brink of failure. The Regional Water Board is requesting federal action at this time to prevent the dam failure, which would cause the release of mercury-laden soils.

This Request for Federal Action (attached) is only the first step necessary to start remediation at the Mount Diablo Mine. We look forward to a cooperative and mutually beneficial relationship working toward cleanup at the Mount Diablo Mine.

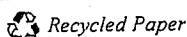
WILLIAM J. MARSHALL, Chief
Landfill, Mines & Storm Water Permitting

Attachment: Request for Federal Action

cc: Karl E. Longley, Chair, Central Valley Regional Water Quality Control Board
Lori Okun, OCC, State Water Resource Control Board, Sacramento
John Hillenbrand, USEPA, San Francisco
Larry Bradfish, USEPA, San Francisco
Mitch Avalon, Contra Costa County Flood Control, Martinez

RDA;W:\atkinsr\mydocuments\WtDiablo\EPA_EmergencyRespond.doc

California Environmental Protection Agency



REQUEST FOR FEDERAL ACTION

The Central Valley Regional Water Quality Control Board ("Requesting Agency") requests assistance from the United States Environmental Protection Agency, Region 9 ("EPA") to conduct a removal action at the facility located at:

Mount Diablo Mine, Morgan Territory Rd. - 5 miles southeast of Clayton
(assessors parcel #78060008-6)

Street Address, Parcel Number or Other Property Description

Contra Costa

County

California

State

By making this Request, the Requesting Agency recognizes that with respect to this removal action EPA, or any other federal agency acting in conjunction with or on behalf of EPA, may use its authority under the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA"), 42 U.S.C.A. §§ 9601, et seq., the National Contingency Plan ("NCP"), 40 C.F.R. Part 300, or any other federal statute, regulation or response program, to respond to and recover costs incurred in response to releases or threats of releases of pollutants and contaminants as deemed necessary in EPA's sole discretion to abate an imminent and substantial endangerment to public health or welfare or the environment at the location stated above. By making this Request, the Requesting Agency acknowledges that notice pursuant to Section 128(b)(1)(D) of CERCLA, 42 U.S.C. § 9628(b)(1)(D), is not applicable with respect to this removal action. The signatory of this request is authorized to make this request on behalf of the State.

Executed on this the 19 day of November, 2008.



PAMELA C CREEDON, Executive Officer



Linda S. Adams
Secretary for
Environmental
Protection

California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>



Arnold
Schwarzenegger
Governor

TO: Pamela Creedon
Executive Officer
CVRWQCB

FROM: Ross Atkinson
Engineering Geologist
Title 27 Permitting and Mining

DATE: 14 November 2008

SIGNATURE: *[Signature]* for RDA

SUBJECT: U.S. EPA EMERGENCY RESPONSE FOR MOUNT DIABLO MINE, CONTRA
COSTA COUNTY

We are requesting the U.S. EPA take emergency action to prevent catastrophic failure of the settling pond dam at Mount Diablo Mine in Contra Costa County. Mount Diablo Mine is a historic mercury mine with ongoing discharges of mercury-contaminated water into a settling pond. A large scour feature developing at the base of the impoundment dam threatens the integrity of the settling pond. Potentially, further erosion could undermine the dam and cause catastrophic failure and release of large amounts of mercury contaminated sediments. This emergency response should be implemented as soon as possible to mitigate this threat early in the rainy season. (See attached pictures)

RDA:W:\atkinsr\mydocuments\MtDiablo\EmergencyRespMemo.doc

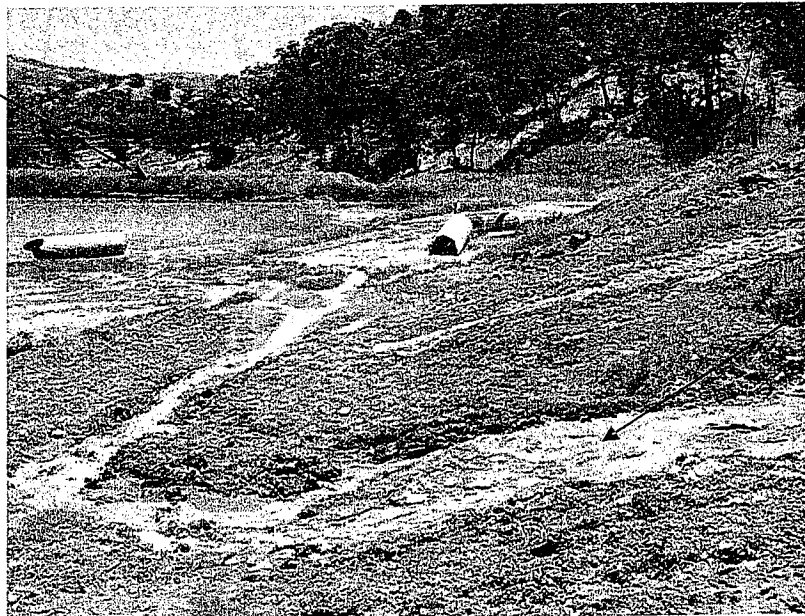
Pond Area



Eroded
Dam

Scour feature developed into base of the settling pond dam.

Pond Dam



Discharge from
mine

Mercury contaminated waters discharge into settling pond.

News Releases from Region 9

U.S. EPA orders former East Bay mine operator to take action to prevent contamination of waterway / Former Mt. Diablo Mercury Mine operator must stabilize pond containing mercury

Release date: 12/11/2008


Contact Information: Wendy Chavez, 415.947.4248,
chavez.wendy@epa.gov


(12/11/08) (SAN FRANCISCO) -- The U.S. Environmental Protection Agency today ordered former mine operator Sunoco, Inc. to stabilize a mine waste impoundment pond at the abandoned Mt. Diablo Mercury Mine in Contra Costa County, Calif., that threatens to release mercury-contaminated waters and sediments into a nearby stream that could potentially reach the San Francisco Bay Estuary.

Currently, Dunn Creek is cutting into the berm of an impoundment pond that holds mercury-contaminated water and fine sediment. The EPA's order requires the former operator to stabilize the berm before the winter rain season begins to prevent it from collapsing, potentially causing contamination downstream to Marsh Creek and to the Marsh Creek Reservoir -- which leads to the Bay.

"All too often, abandoned mines leave behind a toxic legacy that now threatens the health of people and the natural resources of the state," said Daniel Meer, the Superfund assistant director for Emergency Response, Preparedness and Prevention for the EPA's Pacific Southwest region. "This is one of many actions that may need to be taken at this site to continue to protect public health."

The mine, located on the northeast slope of Mount Diablo,

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Recent additions

- 12/16/2008 [U.S. EPA applauds Orange County for wastewater purification / Water district 's treated sewer water exceeds federal drinking water standards \(CA\)](#)
- 12/15/2008 [U.S. EPA, partners kick off green building design challenge / Contest to reward designs that save resources, costs \(HQ\)](#)
- 12/15/2008 [EPA orders Estate of James Campbell and Sogo Hawaii, Inc. to cleanup the former Chem-Wood site / Action to address immediate hazards at property \(HI\)](#)
- 12/12/2008 [Northern California Institute Chosen as Finalist for Grant to Improve the Gulf of Mexico \(HQ, CA\)](#)
- 12/11/2008 [EPA and ADEQ honor Arizona's environmental business leaders / ADEQ initiates state-](#)

is situated along the well-traveled Morgan Territory Road.

In October, the EPA sampled water and sediment for mercury contamination. The results exceeded background levels and the EPA's regulatory levels. Mercury can also be released with dust generated at the site, where airborne particulates can be deposited into the waterways as well as pose an inhalation and ingestion risk to human health.

Stabilizing the impoundment dam will mitigate the imminent threat of contaminated water and sediment from releasing at the site. Additional site assessment and characterization is needed to develop future actions to address any remaining threats posed by the former mining operations.

Mercury exposure occurs from breathing air contaminated with mercury or ingesting contaminated water and food. Short-term exposure to high levels of mercury vapors can cause lung damage, nausea, vomiting, diarrhea, increased blood pressure or heart rate, skin rashes and eye irritation. Mercury, at high levels of exposure, may cause damage to the brain, kidneys and developing fetus. The nervous system is very sensitive to all forms of mercury. Young children are more sensitive to mercury than adults.

###



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105

JAB
WJM

RECEIVED
SACRAMENTO
CVRWOCB
08 DEC -8 PM 4:00

MEMORANDUM

DATE: DEC 2 2008

SUBJECT: Request for a Time-Critical Removal Action at Mount Diablo Mercury Mine(Marsh Creek Road Abandoned Dump Site), Clayton, Contra Costa County, California

FROM: Janet Yocum, On-Scene Coordinator
Emergency Response Section (SFD-9-2)

THROUGH: Steve Calanog, Chief
Emergency Response Section (SFD-9-2)

TO: Daniel Meer, Chief
Response, Planning & Assessment Branch (SFD-9)

I. PURPOSE

The purpose of this Action Memorandum is to obtain approval to spend up to \$205,625 to mitigate threats to human health and the environment posed by mercury mine waste-impacted water, sediments and soil at 2430 Morgan Territory Road ("Site"). The Site is a 109-acre residential parcel that was formerly the Mount Diablo Mercury Mine, in Clayton, Contra Costa County, California. The Site is located on the northeast slope of Mount Diablo, within the Marsh Creek watershed, approximately 10 miles south of the San Joaquin Delta, California. The proposed action is to stabilize the impoundment pond holding hazardous substances and would be taken pursuant to Section 104(a)(1) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9604(a)(1), and Section 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 CFR § 300.415.

II. SITE CONDITIONS AND BACKGROUND

Site Status: Non-NPL
Category of Removal: Time-Critical
CERCLIS ID: CAD980736060
SITE ID: TBD

A. Site Description

1. Physical Location

The Site is situated immediately west of Morgan Territory Road, just south of its juncture with Marsh Creek Road, Clayton, Contra Costa County, California. The geographic coordinates of the Site are 37°54'0.99" North latitude and 121°52'27.37" West longitude. See Appendix A, "Figure 1, Site Location Map".

The Site consists of 109 acres on the northeast slope of Mount Diablo. The Site is bordered on the east side by Morgan Territory Road. To the west and south, the Site is bordered by the State of California's Mount Diablo State Park. On the east of the property, between Morgan Territory Road and the Mine Site, is Dunn Creek, a seasonal tributary of Marsh Creek. Horse Creek, another tributary of Marsh Creek, is located on the south side of the property and originates on State Parks land. A number of springs and seeps also exist at the Site. A number of residential structures have been placed at the site by the current owner.

2. Site characteristics

The former Mount Diablo Mercury Mine is located approximately 4 miles southeast of the town of Clayton, Contra Costa County, California. The ore processed at this Site included metacinnabar and cinnabar. The first account of mercury recovery from the ore was approximately 1863, where an individual intersected ore at approximately 30 feet deep and through panning of the soil found at that depth, recovered the mercury. The mine may have produced 1,000 flasks between the period of 1875 and 1877. The mine lay inactive until 1930, when a commercial enterprise reopened the mine. In 1936, Bradley Mining Company took over production at the mine under a lease and operated it until 1946. Additional exploration and small operations continued thereafter, including the Cordero Mining Company until 1956. The mine was operated intermittently thereafter until 1970 or 1971. It was purchased by Jack Wessman, the current property owner in 1974, who uses it as a residential property. In 2005, Wessman created two entities, Mt. Diablo Springs Improvement Society and the Wessman Family Trust and transferred his interest in the property to these entities.

The underground workings of the mine extended 500 feet below surface and filled with water at that time. In 1956, a commercial enterprise attempted to pump the water out of the underground workings using a deep-well pump capable of 550 gallons per minute. This water being pumped out was being directly discharged to the creek on the property and adjacent landowners objected to the discharge of acid mine drainage directly into the creek and the practice was terminated. (Journal of California Mines and Geology, 1958).

There are a number of springs of indeterminate origin on the Site that contribute to surface flow into a series of settling ponds that were constructed on site, the largest of which is located on the southeastern corner of the former mine property and is the subject of this removal action. The Site is fenced and access is controlled from the highway.

There is one large building currently utilized by the property owner that may be associated with former Mine operations, but no other process-related structures or equipment appear in place at the Mill Site.

Calcined tailings and waste rock (overburden) were observed at the Site. In areas around the Site, tailings and overburden may have been covered by the current property owner who imported and placed fill. Some drainage control work has also been completed by the current property owner.

3. Removal site evaluation

Mining waste (inorganic mercury) may become an environmental problem when it contacts water and mercury bound sediments are transported from the site, deposited in waterways where methylation can occur. Mercury can also be transported by air, dissolved in water, bound to sediments and accumulates in tissue of aquatic organisms. Mercury bioaccumulates as it moves up the aquatic food chain, resulting in highest tissue concentrations in high order consumers (predatory fish, humans).

In 1995, University of California, Davis researchers, Darryl G. Slotten et.al were contracted by Contra Costa County Department of Public Works to study the impact of mercury in the Marsh Creek watershed. One study objective was to determine on a mass balance basis, whether the former mine site was the largest contributor to mercury loads in the watershed. The watershed is primarily fed by seasonal tributaries to Marsh Creek located along the eastern flank of Mt. Diablo. Prior to the study, the Regional Water Quality Control Board (RWQCB) had collected samples around the mine site that indicated the mine was contributing to the mercury loading of Marsh Creek and its reservoir. The study collected samples and determined flow levels to calculate mass balance from a number of locations within the watershed. In the course of collecting this data, the researchers determined that Marsh Creek flows at an estimated rate of hundreds of cubic feet per second through winter storm runoff events. This data appears below as Table 1, "Slotten Watershed Flow; Aqueous Mercury and Suspended Solids Concentration Data". (Slotton, et.al, 1995). A figure showing sample locations appears in Appendix A, "Figure 2, Slotten 1995 Sample Locations".

Table 1. Slotten Watershed Flow; Aqueous Mercury and Suspended Solids Concentration Data

Site	Flow (cfs)	Aqueous Total Mercury		Suspended Solids	
		Raw	Filtered	All (TSS)	Solids Hg
		(ng/L)		(mg/L)	(dry ppm)
Upper Marsh Creek	28.30	3.24	1.29	16.10	0.10
Curry Creek	33.70	5.18	1.49	32.00	0.12
Marsh Ck above Perkins Ck	65.60	4.69	1.34	32.10	0.10
Perkins Creek	13.90	8.89	4.11	3.00	1.59
Upper Dunn Creek	5.20	3.60	2.73	1.50	0.60
Upper Horse Creek	0.08	25.50	16.00	1.10	8.64
"My" Creek	2.10	381.00	28.40	10.90	32.41
OreHouse Spring	0.01	1,940.00	71.00	11.40	164.00
Trickle coming from tailings	0.03	58,400.00	54,100.00	77.20	56.37
South Pond outlet	0.05	59,100.00	59,100.00	26.10	0.00
Horse Creek @ tailings	0.32	25,000.00	21,900.00	104.00	29.8
Dunn Ck below mine confluence	7.80	949.00	226.00	13.50	53.60
Marsh Ck below Dunn Ck conf.	83.60	79.30	21.40	19.40	2.99
Mid Marsh Ck @ rd. crossing	101.00	52.80	10.10	24.60	1.74
Marsh Ck above Reservoir	111.00	37.67	8.80	23.10	1.25
Briones Ck @ Deer Valley Rd.	4.10	5.84	2.03	61.20	0.06
Marsh Ck below Reservoir	116.00	43.70	7.47	34.60	1.05
Marsh Ck @ Delta Rd.	107.00	37.80	6.44	53.80	0.58
		Aqueous Methyl Mercury			
		Raw	Filtered		
		(ng/L)			
Marsh Ck above Reservoir		0.204	0.112		

The researchers concluded the Site, through transport of water and sediment in Dunn Creek was a significant contributor to the mercury loads into Marsh Creek, representing 94.5% of the total mercury loads to Marsh Creek. These results are presented in Table 2, "Slotten Calculated Relative Mercury Mass Balance Contributions of Upper Watershed Sources".

Table 2, Slotten Calculated Relative Mercury Mass Balance Contributions of Upper Watershed Sources

Site	Aqueous Total Hg		Suspended Solids (TSS) (kilograms/day)
	Raw (grams/day)	Filtered	
Upper Marsh Creek	0.224	0.089	1,110.0
Curry Creek	0.427	0.123	2,640.0
Marsh Ck above Perkins Ck	0.753	0.215	5,160.0
Perkins Creek	0.302	0.140	102.0
Upper Dunn Creek	0.046	0.035	18.4
Upper Horse Creek	0.005	0.003	0.2
"My" Creek	1.960	0.146	55.9
OreHouse Spring	0.048	0.002	0.3
Trickle coming from tailings	4.290	3.970	5.7
South Pond outlet	7.230	7.230	3.2
Horse Creek @ tailings	19.600	17.100	81.2
Dunn Ck below mine confluence	18.100	4.310	257.0
Marsh Ck below Dunn Ck conf.	16.200	4.380	3,960.0
Mid Marsh Ck @ rd. crossing	13.100	2.500	6,070.0
Marsh Ck above Reservoir	10.200	2.380	6,250.0
Briones Ck @ Deer Valley Rd.	0.059	0.020	614.0
Marsh Ck below Reservoir	12.390	2.120	9,800.0
Marsh Ck @ Delta Rd.	9.880	1.680	14,100.0
Aqueous Methyl Hg			
	Raw	Filtered	
	(grams/day)		
Marsh Ck above Reservoir	0.055	0.030	

Based on these data, input from the current owners and interest of stakeholders represented by the Technical Planning Panel (TPP) identified by the US Corps of Engineers under their Restoration of Abandoned Mine Sites (RAMS) program, US EPA participated in a site visit August 2008 . During this site visit, it was visibly apparent that the south settling pond dam was being compromised by the flows of Dunn Creek and possibly Horse Creek. There are no current estimates of the quantities of water or sediment being held in the impoundment. No records have been provided for review that suggests the pond has ever been dredged. Photos appear in Appendix B, "Photographic Log".

On October 14, 2008, U.S. EPA and Superfund Technical Assistance Response Team ("START") conducted a site visit to collect various samples at the south settling pond and various seeps that are inflow sources to the pond. The data is presented below in Table 3, USEPA Removal Site Evaluation Data. A map showing the locations of these samples appears in Appendix A, "Figure 3, US EPA Sampling Locations".

Sample ID	Sample Location	Mercury Result (ug/L)	MC ¹ (ug/L)	USEPA CMC ² (ug/L)	SF Bay RWQCB Surface Water Screening Levels ³ (ug/L)	SF Bay RWQCB Surface Water Gross Contamination Ceiling Levels ⁴ (ug/L)
MD-SW-1	Southeast corner of surface impoundment	40.4	2	1.4	0.025	50,000
MD-SW-2	Seep #1	20.6	2	1.4	0.025	50,000
MD-SW-4	Seep #3	130	2	1.4	0.025	50,000
MD-SW-6	Upgradient (Horse Creek)	ND	2	1.4	0.025	50,000
MD-SW-8	Outflow to State Park	0.393 J	2	1.4	0.025	50,000
MD-SW-9	Seep # 1 midpoint	13.8	2	1.4	0.025	50,000
MD-SW-10	Convergence of Seep #1 and impoundment	19.6	2	1.4	0.025	50,000

1: National Primary Drinking Water Standards Maximum Concentration Level

2: USEPA Criterion for Maximum Concentration

3: San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (May 2008), Surface Water Screening Levels Fresh Water Habitats

4: San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (May 2008), Surface Water Gross Contamination Ceiling Levels (surface water is not a current or potential source of drinking water)

On November 20, 2008, US EPA Emergency Response Section received a request from the Regional Water Quality Control Board for federal action to mitigate the threat of release of hazardous substances (mercury) associated with mining activities at the Site posed by the imminent failure of the south settling pond dam, located at the

confluence of Horse and Dunn Creeks and the shared State Parks and Site property line. Failure of this impoundment would result in a release of mercury impacted water, sediments and soil as well as acid mine drainage to Marsh Creek and then the San Joaquin Delta, reaching San Francisco Bay and the Pacific Ocean.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Mercury is a hazardous substance as defined by Section 101(14) of CERCLA. Mercury exposure occurs from breathing air contaminated with mercury, ingesting contaminated water and food. Mercury, at high levels of exposure, may cause damage to the brain, kidneys and developing fetus. Effects on brain functioning may result in irritability, tremors, changes in vision or hearing, and memory problems. The nervous system is very sensitive to all forms of mercury. Short-term exposure to high levels of mercury vapors can cause lung damage, nausea, vomiting, diarrhea, increased blood pressure or heart rate, skin rashes and eye irritation. Young children are more sensitive to mercury than adults (ATSDR 1999.)

The southeastern toe of the south settling pond dam is being actively undercut by Horse Creek and Dunn Creek drainages. The south settling pond is the final structure on the Site that retains water from the site, including seeps, contact water (tailings) and non contact water (runoff), including acidic mine drainage. The series of ponds were installed to allow sediment to "drop out," capturing and retaining potentially mercury bound fines that would otherwise be transported into downstream water bodies like Marsh Creek and the San Joaquin Delta. With a broad surface area, the waters held in these ponds can evaporate, reducing the amount of acid mine drainage or mercury impacted waters released to the adjacent creeks (Dunn and Horse). Failure of the south settling pond dam would result in catastrophic release of hazardous substances in the form of mercury bound sediment and mercury impacted waters from the site to Marsh Creek.

Mercury bound sediments can also be released with dust generated at the site. These air borne particulates can be deposited into the waterways as well as pose an inhalation/ingestion risk to human health.

5. NPL status

This Site is not on the National Priorities List (NPL).

B. Other Actions to Date

In 2006, the State Resources Water Control Board, Central Valley Region, proposed Dunn and Marsh Creeks to the 303(d) List as impaired for mercury.

The Regional Water Control Board has prepared a Draft Cleanup and

Abatement Order for the current property owners to compel cleanup at this Site. See Enforcement Addendum.

C. State and Local Authorities Roles

1. State and local actions to date

On November 20, 2008, a formal request for federal action was received by US EPA from the State of California, Regional Water Quality Control Board, Central Valley Region ("RWQCB") for this Site.

2. Potential for Continued State/Local Response

The state has issued Cleanup and Abatement Orders in the past to the current property owner. While Contra Costa County has indicated it has interest in undertaking a cleanup of the site, there are legal and financial constraints that would require resolution before the County would undertake any work on the site. Although those constraints have been identified, no resolution has been developed.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Current Site conditions pose the threat of potential future releases of hazardous substances. These substances include mercury present within mine tailings and waste rock, contaminated soils and sediments. The likelihood of direct human exposure, via ingestion and/or inhalation of hazardous substances, and the threat of potential future releases and migration of those substances, pose an imminent and substantial endangerment to public health, and/or welfare, or the environment based on the factors set forth in the NCP, 40 CFR § 300.415(b)(2). These factors include:

1. Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations or the food chain

As described in Section II.A.4, high concentrations of mercury, a heavy metal, has been detected in samples at the south settling pond sediments and at various seeps on the site. If the dam should fail there is a potential for release of large quantities of mercury impacted water and sediments to Marsh Creek. Additionally, hazardous substances may be entrained in naturally and mechanically generated dust from the tailings or waste rock at the Site and be transported during high wind or rain events into the adjacent properties.

Analytical results indicate that concentrations of heavy metals identified in these media, exceed regulatory levels including U.S. EPA's Criterion for Maximum

Concentration, a ceiling value set at the point toxic effects to wildlife from contaminants in surface waters. Mercury is a hazardous substance as defined by Section 101(14) of CERCLA. Mercury exposure occurs from breathing air contaminated with mercury, or from ingesting contaminated water and food. Mercury, at high levels of exposure, may cause damage to the brain, kidneys and developing fetus. Effects on brain functioning may result in irritability, tremors, changes in vision or hearing, and memory problems. The nervous system is very sensitive to all forms of mercury. Short-term exposure to high levels of mercury vapors can cause lung damage, nausea, vomiting, diarrhea, increased blood pressure or heart rate, skin rashes and eye irritation. Young children are more sensitive to mercury than adults (ATSDR 1999.)

High concentrations of metals in sediments have already been identified in the downstream Marsh Creek Reservoir, resulting in a fish advisory and closure of the reservoir to public use. Wildlife may also be exposed to hazardous substances in impacted waters, fine-grained tailings and waste rock via the ingestion and inhalation pathways.

2. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released

Visual observation suggests that the south settling pond dam is being scoured by Dunn Creek at the southeastern corner where Dunn Creek and Horse Creek meet. This scour feature has already resulted in undercutting the dam toe. During a high flow storm event, it is anticipated the scour feature will be worsened.

Additionally, there were seeps observed in the exterior dam face. A full engineering study should be undertaken to better manage the flows from the site and its adjacent water bodies, including a study on whether the settling ponds in their current configuration and locations are best to manage the effluent from the site. However, in light of the upcoming rainy season, it is imperative to stabilize the pond dam's face to prevent catastrophic failure and subsequent release of mercury-contaminated sediments and water.

Overall Site drainage controls should also be assessed and addressed as necessary to reduce inflow to the settling ponds, or to minimize contact with tailings and/or waste rock.

3. Availability of other appropriate Federal or State response mechanisms to respond to the release

The State Regional Water Quality Control Board has stated it is unable to perform removal actions necessary at this Site and has requested federal assistance as described in a Federal Request for Action Letter, dated November 20, 2008.

IV. ENDANGERMENT DETERMINATION

Actual and threatened releases of hazardous substances from this site, if not addressed by implementing a Time-Critical Removal Action may continue to present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

U.S. EPA proposes to mitigate imminent and substantial threats to human health, welfare, or the environment by taking steps to prevent the release of hazardous substances in contaminated soil, sediments and acid mine drainage to the surface waters of Marsh Creek and to the surrounding environment where there is a high likelihood of direct human contact. The removal action will include the following objectives:

- Stabilize the south and southeastern corner of the south settling pond dam to mitigate the threat of catastrophic failure by placing rip rap or using other stabilization methods; and
- Undertake limited channel improvements and mitigate scour features.

2. Contribution to remedial performance

Long term remedial actions may include treatment or disposal of contaminated soils, sediments, debris, and surface waters in and around the Site.

The long-term cleanup plan for the site:

It is expected that this removal action will mitigate the threat of release a catastrophic failure of the settling pond dam. Additional engineering studies should be conducted to determine whether the current configuration and or locations of the

settling ponds are the most effective and efficient effluent management practice to minimize impacted waters containing sediments from leaving the Site. It is unknown what the subsurface conditions are and how that effluent could be managed.

Threats that will require attention prior to the start of a long-term cleanup:

The immediate threats that have been identified in this memorandum will be addressed by the proposed removal action.

The extent to which the removal will ensure that threats are adequately abated:

The stabilization of the south settling pond dam face will abate this one current threat posed at the Site. Additional threats may require additional actions not anticipated as part of this removal.

Consistency with the long-term remedy:

U.S. EPA asserts that the Time-Critical Removal proposed for the Site is consistent with addressing mine waste issues within the Marsh Creek Watershed.

3. Description of alternative technologies

Alternative technologies have not been considered.

4. Applicable or relevant and appropriate requirements (ARARs)

Section 300.415(j) of the NCP provides that removal actions must attain ARARs to the extent practicable, considering the exigencies of the situation. Section 300.5 of the NCP defines applicable requirements as cleanup standards, standards of control, and other substantive environmental protection requirements, criteria or limitations promulgated under Federal environmental or State environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstances at a CERCLA site.

Section 300.5 of the NCP defines relevant and appropriate requirements as cleanup standards, standards of control and other substantive requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, or contaminant, remedial action, location, or other circumstances at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site and are well-suited to the particular site.

Because CERCLA on-site response actions do not require permitting, only substantive requirements are considered as possible ARARs. Administrative requirements such as approval of, or consultation with administrative bodies, issuance

of permits, documentation, reporting, record keeping, and enforcement are not ARARs for the CERCLA sections confined to the site.

The following ARARs have been identified for the proposed response action. All can be attained.

Federal ARARs: The Clean Water Act, 33 U.S.C. Sections 1251, et. seq. and 40 CFR Parts 122, 123 and 124. CERCLA Off-Site Disposal Rule, 42 U.S.C. Section 9621(d)(3) and OSWER Directive 9347.3-8FS; RCRA Land Disposal Restrictions (LDRs) 40 CFR 268.40 ; and the U.S. Department of Transportation of Hazardous Materials Regulations 49 CFR Part 171, 172 and 173.

State ARARs: California Streambed Alteration, Cal. Fish & Game Code § 1602 (potentially applicable).

5. Project schedule

It is estimated that removal activities will take approximately 5 working days to complete.

B. Estimated Costs

Regional Removal Allowance Costs

Cleanup Contractor	\$ 75,000
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Extramural Costs Not Funded from the Regional Allowance

START Contractor	35,000
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Extramural Subtotal	\$ 110,000
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Extramural Contingency (20%)	\$ <u>22,000</u>
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TOTAL, Removal Action Project Ceiling	\$ 132,000
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VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Given the site conditions, the nature of the hazardous substances documented on site, and the potential exposure pathways to nearby populations described in Sections III and IV above, actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response actions selected in this Action

Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues with the Site identified at this time.

VIII. ENFORCEMENT

Please see the attached Confidential Enforcement Addendum for a discussion regarding potentially responsible parties. In addition to the extramural costs estimated for the proposed action, a cost recovery enforcement action also may recover the following intramural costs:

Intramural Costs ¹	
U.S. EPA Direct Costs	\$ 20,000
U.S. EPA Indirect Costs (35.28%)	<u>\$ 53,625</u>
TOTAL Intramural Costs	\$ 73,625

The total U.S. EPA extramural and intramural costs for this removal action, based on full-cost accounting practices, that will be eligible for cost recovery are estimated to be \$205,625.

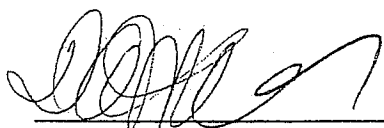
IX. U.S. EPA RECOMMENDATION

This decision document represents the selected removal action for the Mt. Diablo Mercury Mine Site, Clayton, Contra Costa County, California developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

1. Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States' right to cost recovery.

Because conditions at the site meet the NCP criteria for a Time-Critical Removal Action, U.S. EPA enforcement staff recommend the approval of the removal action proposed in this Action Memorandum. The total project ceiling if approved will be \$205,625, of which an estimated \$132,000 comes from the Regional Removal Allowance. Approval may be indicated by signing below.

Approve:



Daniel Meer, Chief
Response, Planning and Assessment Branch

2 December 2008

Date

Disapprove:

Daniel Meer, Chief
Response, Planning and Assessment Branch

Date

Enforcement Addendum
Appendix A, Figures
Appendix B, Photographic Log

Attachments:

1. Index to the Administrative Record

cc: Sherry Fielding, OEM, HQ
Pat Port, U.S. Department of Interior
Pamela C. Creedon, Central Valley Regional Water Quality Control Board

Mount Diablo Mercury Mine Site
November 2008

APPENDIX A
FIGURES

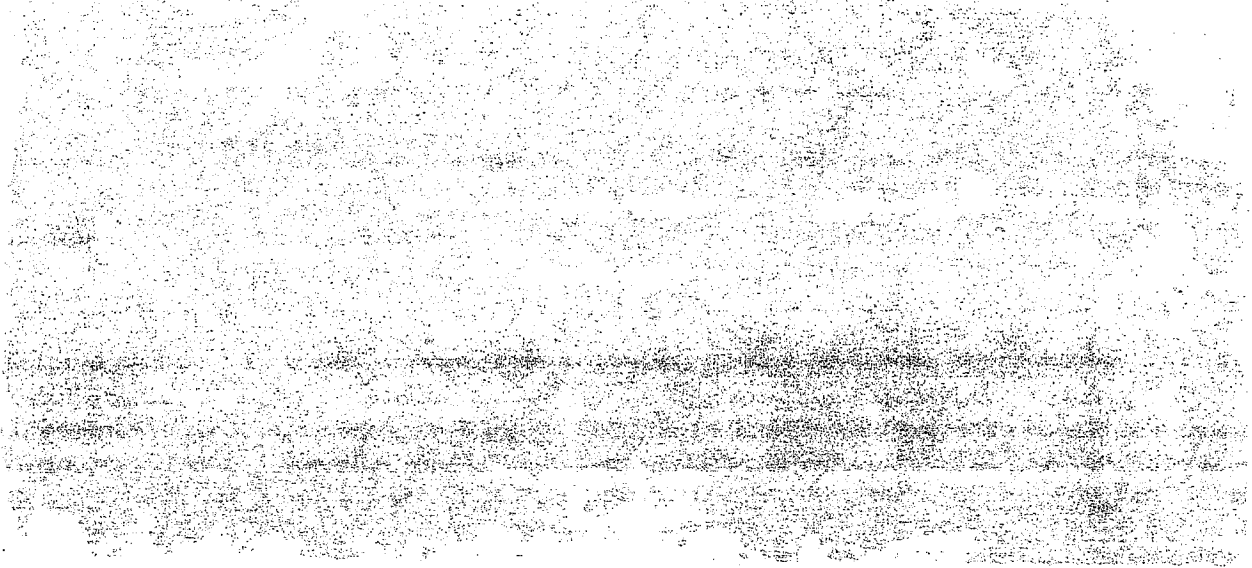
**Mount Diablo Mercury Mine Site
November 2008**

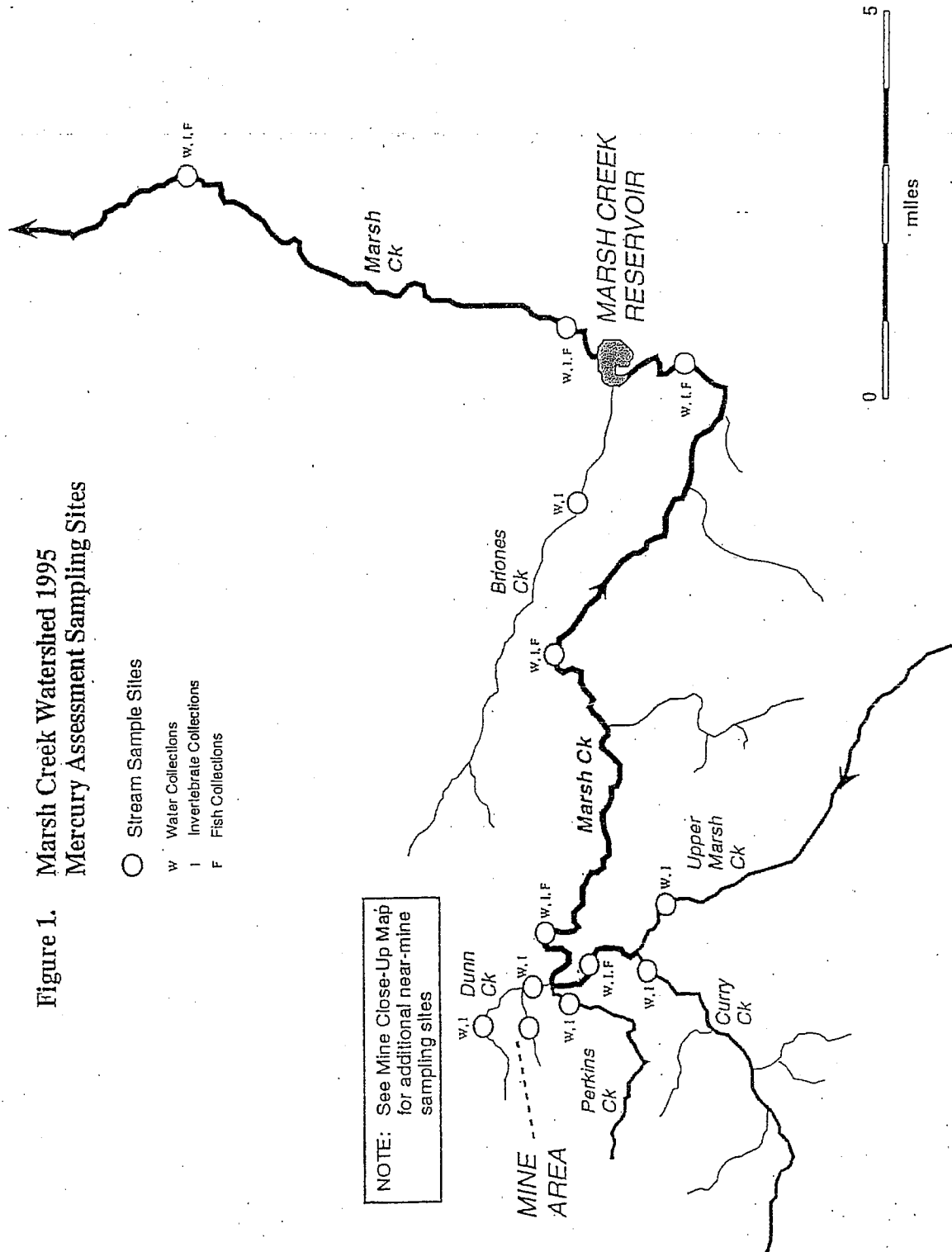
**Figure 1
Site Location Map**



Mount Diablo Mercury Mine Site
November 2008

Figure 2
Slotten 1995 Sample Locations





**Mount Diablo Mercury Mine Site
November 2008**

**Figure 3
US EPA Sampling Locations**



© 2008 Tolo Atlas

Streaming 100%

Pointer 37°54'03.70" N 121°52'32.16" W elev 7550

EV9611 18:21

Mount Diablo Mercury Mine Site
November 2008

APPENDIX B
PHOTOGRAPHIC LOG



10.14.2008

Mount Diablo Mercury Mine Site
November 2008

RECEIVED
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Index to the Administrative Record

1. Agency for Toxic Substances and Disease Registry (ATSDR). 1999. Toxicological profile for mercury. Atlanta, GA.
2. Central Valley Regional Water Quality Control Board (RWQCB). 2008. Request for Federal Action.
3. State of California, Division of Mines. 1958. California Journal of Mines and Geology, Vol. 54, No. 4.
4. Darryl G. Slotten, et.al. Marsh Creek Watershed 1995 Mercury Assessment Project. (1996)
5. Central Valley Regional Water Quality Control Board. 2006. Proposed 2006 CWA Section 303(d) List of Water Quality Limited Segments.

**United States Environmental Protection Agency
Region IX
POLLUTION REPORT**

Date: Wednesday, December 17, 2008

From: Janet Yocum, OSC

To: Bill Morse, Sunoco

Subject: One and Final
Mount Diablo Mercury Mine
Marsh Creek and Morgan Territory Roads, Clayton, CA
Latitude: 37.9002
Longitude: -121.8742

POLREP No.:	1	Site #:	09RX
Reporting Period:		D.O. #:	
Start Date:	12/15/2008	Response Authority:	CERCLA
Mob Date:	12/15/2008	Response Type:	Time-Critical
Completion Date:	12/17/2008	NPL Status:	Non NPL
CERCLIS ID #:		Incident Category:	Removal Action
RCRIS ID #:		Contract #	

Site Description

The Site is situated immediately west of Morgan Territory Road, just south of its juncture with Marsh Creek Road, Clayton, Contra Costa County, California. The geographic coordinates of the Site are 37°54'0.99" North latitude and 121°52'27.37" West longitude.

The Site consists of 109 acres on the northeast slope of Mount Diablo, 4 miles southeast of the town of Clayton, Contra Costa, California. The Site is bordered on the east side by Morgan Territory Road. To the west and south, the Site is bordered by the State of California's Mount Diablo State Park. On the east of the property, between Morgan Territory Road and the Mine Site, is Dunn Creek, a seasonal tributary of Marsh Creek. Another tributary of Marsh Creek is located on the south side of the property, Horse Creek, and originates on State Parks land. A number springs and seeps also exist at the Site. A number of residential structures have been placed at the site by the current owner.

USEPA ordered Sunoco to perform stabilization at the impoundment dam to prevent catastrophic failure before this winter season, typically a season of high rainfall.

Current Activities

Monday, 12/15/08. EPA-1, PRP-7. Mobilization to the site. Safety briefing by PRP contractor, SGI. Access to the work area must occur through the adjacent State Parks land (equestrian trail). USEPA issued an order for access to State Parks, at their request. OSC notified State Parks (Superintendent) of activities on their property including: removing and daily replacement of fence facing Morgan Territory Road; placement of rock across the access road to allow equipment and vehicle access without damaging the existing grade, and indicated availability for site visit to discuss concerns if any. No heavy equipment was tracked across State Parks Land. Excavator tracked into work area through Jack Weissman's property. Fence at State Parks Boundary Marker on Morgan Territory Road removed by removing t-posts to which barbed wire was strung. The

area in State Parks land was recently tilled, and no vegetation was observed in the areas impacted by this work. Impoundment dam bank contoured and grubbed. Rip rap placed into scour.

Tuesday, 12/16/08: EPA-2, PRP-8. Site visit today by Sunoco representative. Work continued on filling the scour area. Both banks along the scour were groomed, to receive wire mesh and shotcrete above the existing stream bed. Import rock placed into scour feature.

Wednesday, 12/17/08: EPA-2, PRP-12. Site visit by State Parks Superintendent after all work completed. Performed site walk and asked whether there were any concerns. State Parks representative did not have any concerns with the work. Discussed work with current property owner, Jack Wessman, who expressed concern that the rock would be swept away downstream by high velocity flow. Rock that was placed on State Parks land was removed, the equestrian trail was regraded to match existing. All fencing was restored and tightened, with additional fencing across the channel bottom to prevent livestock escaping from Mr. Wessman's property.

Planned Removal Actions

The activities for stabilizing this scour feature included placing riprap into the channel to de-energize the flow as well as support/stabilize the earthen structure.

Next Steps

None.

Key Issues

1. The adjacent parcel of State Parks land where Dunn Creek meets Horse Creek currently suffers from erosion where dunn and horse creeks meet.
1. Rain event during the period of performance suggests that not much surface water appears to be directed to the impoundment.
1. Further assessment should be undertaken to determine whether impoundment is leaking or whether there is subsurface flow to impoundment then to Dunn/Horse Creek.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	\$0.00	\$0.00	\$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

epaosc.net/MtDiablo



Sunoco, Inc.
1735 Market Street Ste LL
Philadelphia PA 19103-7583

Via Electronic Mail

December 15, 2008

Larry Bradfish, Esq.
Office of Regional Counsel
U.S. EPA, Region, IX
75 Hawthorne Street
San Francisco, CA 94105
Bradfish.Larry@epa.gov

Re: Notice of Intent to Comply with Unilateral Administrative Order
Mt. Diablo Mercury Mine Site

Dear Mr. Bradfish:

On behalf of Sunoco, Inc. ("Sunoco"), this letter serves as the Notice of Intent to Comply ("Notice") with the Unilateral Administrative Order for the Performance of Removal Action, USEPA Docket No. 9-2009-02 ("Order"), which was issued by the United States Environmental Protection Agency ("EPA") for the Mt. Diablo Mercury Mine Site in Clayton, California ("Site") on December 9, 2008 and received by Sunoco on December 10, 2008. A copy of the Order is included as Appendix A. In accordance with the requirements of paragraph 38 of the Order, Sunoco confirms that it intends to comply with the Order, including the scope of the field work requested in paragraph 22 of the Order and any additional work that may be requested pursuant to paragraph 46 of the Order, so long as it is reasonably required to address the unanticipated or changed circumstances referred therein.

This Notice reflects Sunoco's continued cooperation with EPA in addressing environmental conditions at the Site. We think it is fair to point out that Sunoco did not receive notice of potential responsibility for the Site until October 22, 2008. Moreover, Sunoco was not notified that "emergency conditions" required immediate action until a telephone conversation with representatives of EPA on November 7, just slightly over a month before the Order was issued. At that time, no scope of work had been developed for the field activities requested, and Sunoco did not have a proposed scope of work for those activities until December 4, 2008, when we received EPA's Request for Action Memo, dated December 2, 2008. During this four-week period, Sunoco actively participated in meetings with legal and technical representatives of EPA and arranged for

its consultant to review site conditions and potential interim remedial measures. Through this course of cooperation, Sunoco has been able to take all reasonable measures, many in advance of the issuance of the Order, to be prepared to respond in a timely manner. In fact, even before this timely Notice was issued, EPA has already received and approved Sunoco's work plan for the Site.

Sunoco's agreement to comply with this Order should not be construed to constitute a waiver of Sunoco's right to object to such unauthorized demands in any future orders or in connection with any expanded demands for work under this Order. Additionally, to the extent that Sunoco has not commented on any of the factual (or legal) assertions made by EPA in the Order, its silence should not be taken as assent to or an admission of their accuracy or justification.

Please feel free to contact me at 856-853-3903 if you have any questions related to this Notice.

Sincerely,



Lisa A. Runyon
Senior Counsel

cc: Janet Yocum, USEPA (Yocum.Janet@epamail.epa.gov)
Michael Bourque
Steve Coladonato
William R. Morse

Exhibit 23



California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair

Linda S. Adams
Secretary for
Environmental
Protection

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>

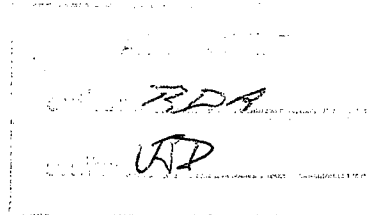


Arnold
Schwarzenegger
Governor

9 December 2008

FILE COPY

David Chapman
Edgcomb Law Group
115 Sansome St, Suite 700
San Francisco, CA 94104



CALIFORNIA PUBLIC RECORDS ACT REQUEST FOR MT. DIABLO MERCURY/QUICKSILVER MINE, CONTRA COSTA COUNTY [PRA0809-00172]

The Regional Water Quality Control Board, Central Valley Region (Regional Board) received your request on 5 December 2008 requesting documents pursuant to the Public Records Act. The following outlines our understanding of your letter and request:

All documents, whether in paper or electronic format including but not limited to all reports, news articles, memoranda, correspondence (including emails), notes and photos regarding Mt. Diablo Mercury/Quicksilver Mine, Morgan Territory Rd., Contra Costa County, California and any alleged downstream mercury contamination in Marsh Creek.

Regional Board has located records responsive to your request. The Regional Board will not provide copies of any records that are exempt from disclosure, including without limitation documents protected by the attorney-client privilege or attorney work product doctrine (Gov. Code Section 6254, subd. (k)); that pertain to pending litigation (Gov. Code Section 6254, subd. (b)); that are preliminary drafts, notes, or inter-agency or intra-agency memoranda that are not retained in the ordinary course of business, provided that the public interest in withholding those records clearly outweighs the public interest in disclosure (Gov. Code Section 6254, subd. (a), and Section 6255); that reveal deliberative process (Gov. Code Section 6255); or that relate to an investigation for correctional, law enforcement, or licensing purposes (Gov. Code Section 6254, subd. (f)). The Water Board has not located exempt documents to date.

We anticipate that the requested records will be available for copying in two weeks. We will notify you if the documents will be available prior to this date.

You can review Regional Board public records at any time during our regular business hours (8 a.m. to 5 p.m.), Monday through Friday, except for holidays. To facilitate your review, we encourage you to make an appointment first, so staff can ensure that the documents are ready for you. You can set up an appointment to review the requested files by contacting Ross Atkinson, (916) 464-4614 or via email at ratkinson@waterboards.ca.gov. We can also provide you guidance for local copy services to assist you in reproducing these files.

If you have further questions, please contact me at (916) 464-4614 or by email at ratkinson@waterboards.ca.gov.

Sincerely,

Ross Atkinson
Engineering Geologist
Title 27 Permits and Mines Unit

RDA;\W:\staff\atkinsr\mydocuments\MtDiablo\RecordsRequest.doc

Exhibit 24



Linda S. Adams
Secretary for
Environmental
Protection

California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>



Arnold
Schwarzenegger
Governor

25 March 2009

Lisa A. Runyon, Senior Counsel
Sunoco, Inc.
1735 Market Street, Ste. LL
Philadelphia PA 19103-7583

Jack and Carolyn Wessman
PO Box 949
Clayton, CA 94517

ORDER TO SUNOCO INC. TO SUBMIT TECHNICAL REPORTS IN ACCORDANCE WITH SECTION 13267 OF THE CALIFORNIA WATER CODE, MOUNT DIABLO MERCURY MINE, CONTRA COSTA COUNTY

**YOU ARE LEGALLY OBLIGATED TO RESPOND TO THIS ORDER, PLEASE READ THIS
ORDER CAREFULLY.**

Mt. Diablo Mercury Mine is an inactive mercury mine on approximately 109 acres on the northeast slope of Mount Diablo in Contra Costa County. Acid mine drainage containing elevated levels of mercury and other metals are being discharged to a pond that periodically overflows into Horse and Dunn Creeks. Further site investigation is required to assess the extent of pollution discharged from the mine site and to evaluate the remedial options to mitigate the discharge. This site investigation and subsequent remedial option evaluation are needed to select the remedial option to restore the impacted waters of the state and to protect public health and the environment.

Presently, the mine consists of an exposed open cut and various inaccessible underground shafts, adits, and drifts. Extensive waste rock piles and mine tailings cover the hill slope below the open cut, and several springs and seeps discharge from the tailings-covered area. Three surface impoundments at the base of the tailings capture most spring flow and surface runoff. However, during winter the ponds commonly spill into Horse and Dunn Creeks, which drain to the Marsh Creek watershed.

Jack and Carolyn Wessman, who are the current owners of the Mount Diablo Mercury Mine property and are considered to be dischargers, have made some improvements to reduce surface water exposure to tailings and waste rock, including the construction of a clean fill cap was over parts of the tailings/waste rock piles. Although improvements have been made without an engineering design or approved plan, these improvements may have reduced some of the impacts from the mine site. However, discharges that contain elevated mercury levels continue to impact the site and site vicinity.

Cordero Mining Company, owned by Sunoco, Inc. in the 1950s, operated the Mt. Diablo Mine from approximately 1954 to 1956 and was responsible for the past discharge of mining waste. Cordero was dissolved in 1975. Because Cordero Mining Company operated the mine, and due to the interrelationship between Sunoco and Cordero Mining Company, the United States

California Environmental Protection Agency

Environmental Protection Agency (USEPA), Region IX, named Sunoco Inc. a responsible party for Mt. Diablo Mine site in the Unilateral Administrative Order for the Performance of a Removal Action, USEPA Docket No. 9-2009-02. Sunoco, Inc. is considered a discharger at this site.

Pursuant to California Water Code (CWC) section 13267, Sunoco, Inc. is hereby required to submit the following reports:

1. **By 1 June 2009**, a report identifying prior site owners and operators, and their current corporate status;
2. **By 1 July 2009**, a site investigation work plan to identify at the mine site the sources of mercury contamination to surface water and groundwater, and to assess the lateral and vertical extent of pollution; and
3. **By 1 November 2009**, a site investigation report evaluating the data collected and proposing interim remedial actions to inhibit on-going and future discharges to surface and groundwater.

Information in these reports may be used to set time schedules and/or identify additional responsible parties who may be added to this or future orders. Also, please submit a copy of all reports to Ms. Jerelean Johnson at USEPA, Region 9 in San Francisco.

CWC section 13267 states, in part:

(b)(1) In conducting an investigation . . . , the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or, discharging, or who proposes to discharge waste within its region . . . shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

A discharger has a legal obligation to investigate and remediate contamination. As described above, Sunoco Inc. is subject to this Order because of its ownership interest in the Cordero Mining Company, which operated Mount Diablo Mercury Mine and discharged waste to waters of the state. Therefore, it is a "person[s] who [have] discharged . . . waste" within the meaning of CWC section 13267.

The reports are necessary for the reasons described in this Order, to assure protection of waters of the state, and to protect public health and the environment. Failure to submit the required reports by their due dates may result in additional enforcement action, which may include the imposition of administrative civil liability pursuant to CWC section 13268. CWC section 13268 states, in part:

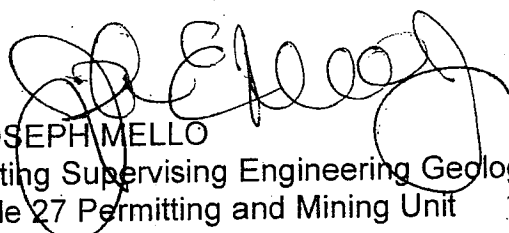
(a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267 . . . or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b). (b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision

(a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.

Any person aggrieved by this action of the Central Valley Regional Water Board may petition the State Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, section 2050. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

Reimbursement of the Central Valley Water Board for reasonable costs associated with oversight of the investigation and remediation of the site will be required. Information will be provided in the next several weeks on the cost recovery program.

If you have any questions, please contact Ross Atkinson at (916) 464-4614 or via e-mail at ratkinson@waterboards.ca.gov.



JOSEPH MELLO
Acting Supervising Engineering Geologist
Title 27 Permitting and Mining Unit

cc: Patrick Palupa, Office of the Chief Counsel, SWRCB, Sacramento
California Dept of Parks and Recreation, Bay Area Dist., San Francisco
Jerelean Johnson, Site Assessment, Superfund Div. USEPA Region 9, San Francisco
Larry Bradfish, Asst. Regional Counsel, USEPA Region 9, San Francisco
Janet Yocum, On-Scene Coordinator, USEPA Region 9, San Francisco
R. Mitch Avalon, Contra Costa County Flood Control, Martinez
William R. Morse, Sunoco, Inc. Philadelphia, PA

Exhibit 25

EDGCOMB LAW GROUP

115 Sansome Street, Suite 700
San Francisco, California 94104
415.399.1993 direct
415.399.1885 fax
elginfo@edgcomb-law.com

►MEMORANDUM

TO: Mr. Joseph Mello; Central Valley RWQCB

FROM: Edgcomb Law Group (for Sunoco Inc.)

DATE: July 31, 2009

CC: Ms. Jerlean Johnson, USEPA, Region IX

RE: Mt. Diablo Mercury Mine Site

Sunoco Inc.'s **Voluntary PRP Report** (as of 7/31/09) is attached hereto as **Exhibit A**.

EXHIBIT A

PRP Name/ Name of Representative	Relevant Time Period	CERCLA Status	Current Viability
Francis Hunsaker (a.k.a. Hastings)	? – 1907	Owner	Unknown
Edward Howard (Daisy Howard)	1907-1933 (portion to Mt. Diablo Quicksilver Co.), and owner until 1952 for another portion of property.	Owner	No further information. Obviously, very likely deceased.
George & Agnes Grutchfield	1914-1930	Owner	No further information. Obviously, very likely deceased.
Joseph Tonge	1929-1931	Owner	No further information. Obviously, very likely deceased.
Mount Diablo Quicksilver Mining Co. / Vic Blomberg, Principal, numerous individual shareholders.	1931-1960, continued to own part of property (including pond) until at least 1965.	Owner/ Operator for some of the time (1931-1933)	Currently continuing to research and locate Mr. Vic Blomberg.
C. W. Ericksen	1933-1936	Operator	No further information. Obviously, very likely deceased.
Bradley Mining Co.	1936-1947	Operator	Currently operating. Being sued by EPA on several other sites. Has some insurance.
Ronnie B. Smith / Producers Refining; Associated names: (1) Jene Harper (c/o Franklin Supply Company, 624 South Michigan Ave., Chicago, Il); (2) Albert J. Mitchell, Treasurer, Franklin Supply Company; (3) James F. Dunnigan (c/o Producers Refining, Inc., 318 West Houghton Ave.,	1951-1953	Lessees/ Operators	Jene Harper, Jr. has been identified as a former vice-president of Franklin Supply Co. and son of the former president of the company, Raymond Harper. Franklin Supply Company merged with Continental Supply in 1995 to become C.E. Franklin, Ltd., and is a publicly traded company on the NASDAQ (Symbol: CFK) and Toronto Stock Exchange (Symbol: CFT).

West Branch, MI); (4) Ronnie B. Smith.			
Margaret H. de Witt, Jane H. Reimers, Elizabeth H. Dakin and Edward A. Howard, Jr.	1952-1970	Owners	No further information.
Jonas & Johnson: John E. Johnson (deceased) and John L. Jonas (Assignees of DMEA Contract). Employees of Jonas & Johnson: Howard Castle (deceased (mining accident at Site)); (1) Melvin Brunner (or "Bruner); (2) George Bartono; (3) Dexter Barkley; (4) Guy Castle; (5) C.N. Schuette.	1953	Lessees/ Operators	Unknown as to Mr. Jonas. Mr. Johnson deceased as of 1958. The only Melvin Brunner located that had ever lived in California, died in 1976 in Angels Camp, CA. C.N. Schuette was located at 6390 Barnett Valley Road, W. Sebastopol, CA. No further information.
U.S. Dept. of Interior; Defense Minerals Exploration Administration (DMEA)	1953-1954	Operator	U.S. Dept of Interior is successor in interest to DMEA's liabilities.
Nevada Scheelite Co., employees: A.R. McGuire & Ray Henricksen.	1956	Operator	Documents obtained from the Nevada Secretary of State confirm that Nevada Scheelite Corp. operated from 1954 to 1957 and that the officers of that corporation were also involved in what is now Kennametal. Kennametal is a currently-operating and publicly traded corporation on the N.Y. Stock Exchange (Symbol: KMT).
V. Blomberg, Dr. Fred Zumwalt, Leland B. Nickerson, Mrs. A.C. Lang, and May Perdue	1958-1962	Owners	Trying to locate V. Blomberg, no information on other names.

John E. Johnson	1958-1959	Lessee/ Operator	Deceased.
Victoria Resource Corp., 923 Fifth Avenue, New York 21, NY	1960-1969	Owner/ Operator for some of the time (1960-1965). Leased property to Welty & Randall from 1965-1969.	Located an article indicating that a "Victoria Resource Corporation" had changed its name to Victoria Gold Corp. in July 2008. Victoria Gold Corp is still operating and is a publicly-traded company, traded on the Canadian Venture Exchange (Symbol: VIT). BEMA Gold Corporation owned 33% of Victoria Gold Corp. BEMA Gold was acquired by Kinross Gold Corporation in 2007. Kinross Gold Corp. is Victoria Gold Corp's largest shareholder, owning 21% of its stock according to an article on Marketwire from May 2009.
Welty & Randall	1965-1969	Lessee/ Operator- reworked mine tailings at site.	Unable to locate any information, but apparently leased property from Victoria Resources from 1965-69.
Guadalupe Mining Co. / Jack Callaway, manager at site. Officers according to Nevada Sec. of State: John Gargan, Sr.; Lillian Gargan; Harold Everton; all of San Jose, CA.	1969/1970-1974	Owner/ Operator	The Nevada Secretary of State records indicate that this company operated as a NV Corporation from 1964-1981. CA Secretary of State Records indicate that it operated as a CA corporation from 1964-1977. Same address in San Jose, CA, listed for both corporations.
Morgan Territory Investment Co.	1970-1976	Owner	No further information.
Jack and Carolyn Wessman	1974-present	Owner	Claims limited assets
The State of California	1976-present	Owner	State Parks Department owns southernmost portion of mine site, including portion of tailings piles.
Frank & Ellen Meyer	1977-1989	Owner of portion of property containing the pond.	Frank Meyer died in 1993. Ellen Meyer listed at address in Gridley, CA. Assets unknown.

EDGCOMB LAW GROUP

115 Sansome Street, Suite 700
San Francisco, California 94104
415.399.1555 direct
415.399.1885 fax
jedgcomb@edgcomb-law.com

VIA EMAIL & U.S. MAIL

November 20, 2009

Mr. Victor J. Izzo
Senior Engineering Geologist
Title 27 Permitting and Mining Unit
Central Valley RWQCB – Sacramento
11020 Sun Center Dr., #200
Rancho Cordova, CA 95670-6114

Re: June 30, 2009 Revised Order to Sunoco, Inc. Under California Water Code
§13267 re: Mount Diablo Mercury Mine, Contra Costa County.

Dear Mr. Izzo:

The June 30, 2009 Revised Order To Sunoco Inc. To Submit Technical Reports In Accordance With Section 13267 Of The California Water Code, Mount Diablo Mercury Mine, Contra Costa County ("Order") provided, in part, that:

By 1 August 2009, Sunoco will voluntarily submit a PRP report including a spreadsheet of known owners/operators, periods of ownership/operation, and any information regarding current financial status.

Per the Order, "[i]nformation in these reports may be used to set time schedules and/or identify additional responsible parties who may be added to this or future orders."

Consistent with the Order, Sunoco submitted a voluntary PRP Report ("PRP Report") on August 1, 2009. Sunoco expended considerable resources in preparing and submitting the PRP Report with the good faith understanding that the Regional Board would utilize the information provided and add the identified PRPs to the June 30, 2009 Order or a future order so that all such PRPs would be required to address the Regional Board's investigative and remedial concerns related to the Mt. Diablo Mercury Mine Site ("Site"), as appropriate.

Nearly four months have passed since Sunoco submitted the PRP Report, which identifies multiple viable PRPs that have either owned or operated at the Site. The Regional Board has yet to formally respond to Sunoco's PRP Report, add any of these PRPs to the Order,

or issue a new order adding these PRPs. The purpose of this letter is to request the Regional Board to issue a new order naming these additional, viable PRPs or, if not, to provide its rationale for not doing so.

Section 1.3 "PRP Notification of Liability" of the United States Environmental Protection Agency's ("USEPA's") *PRP Search Manual*,¹ provides that "[w]hen PRPs have been identified, EPA's general policy is to notify them of their potential liability, advise them of the intended response action, and afford them the opportunity to pay for or conduct response actions." Here, Sunoco has facilitated the Regional Board's identification of PRPs by voluntarily submitting the PRP Report. Consequently, consistent with the USEPA guidance, and based on principles of fundamental fairness, the Regional Board should name such PRPs in a revised order.

Sunoco's PRP Report identified PRPs that should be included on a revised order and required to perform work:

- **Jack & Carolyn Wessman** (Current Site owners liable for investigation and remediation under state and federal law; identified as dischargers on prior Orders but not required to participate in Site investigation or remediation despite having engaged in conduct that may have led to a release or threatened release requiring response actions);
- **Bradley Mining Company** (Operated mine Site prior to Cordero during its period of "greatest activity" between 1936-1946; responsible for extensive tailings pile on southern portion of Site, identified by 1995 Slotton Report as dominant cause of mercury contamination in the Marsh Creek Watershed);
- **Department of Interior** ("DOI's" Defense Minerals Exploration Administration ("DMEA") - which has been found liable for contracting for mining activity elsewhere - contracted with Jene Harper, et al. immediately prior to Cordero's operations and is responsible for the Site's "DMEA shaft");
- **State of California** (State Parks Department owns southernmost portion of Site, including a portion of the tailings pile, and is therefore liable for investigation and remediation under state and federal law);
- **CK Franklin Ltd.** (Successor-in-interest to Franklin Supply Company, whose principal Jene Harper contracted with the DMEA prior to Cordero's site operations);
- **Nevada Scheelite Company** ("NSC" - a subsidiary of Kennecott, Inc., listed on the NYSE, maker of tungsten tools; operated at the Site between 1956-58);
- **Victoria Resources Corporation** ("VRC" - leased the Site to Welty-Randall Mining Co. ("W&R") from 1965-69, when W&R reworked the mine tailings according to the United States Army Corps of Engineers ("USACE") to extract

¹ See <http://www.epa.gov/oeaerth/cleanup/superfund/prpmanual.html>

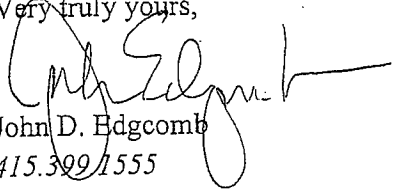
Mr. Victor J. Izzo
Regional Water Quality Control Board, Central Valley
November 20, 2009
Page 3

additional mercury, citing to a 7/17/67 RWQCB memorandum. Changed name to Victoria Gold Corporation in 2008. 33% owned by BEMA Gold).

While Section 1.2.7 of the EPA *PRP Search Manual* provides that "the [EPA] may exercise its discretion in deciding whether to pursue certain parties who fall within a category of liable parties under section 107(a)[,]" none of the above-listed PRPs identified by Sunoco fall under any exemption to the EPA's discretionary enforcement policies and guidance. Similarly, while the Regional Board identified current Site owners Jack and Carolyn Wessman as "dischargers," and included them as addressees on the prior Orders issued to Sunoco, the Orders did not require the Wessmans to participate in any Site investigation or remediation. Accordingly, the Regional Board should continue to name the Wessmans as dischargers on any revised order *and* require them to share in responsibility for conducting any required response actions.

To reiterate, consistent with USEPA guidance and principles of fundamental fairness, Sunoco respectfully requests that the Regional Board name the above identified PRPs in a revised order and all future orders concerning the Mt. Diablo Mercury Mine Site and require them to participate in any required response actions.

Very truly yours,


John D. Edgcomb

415.399.1555

jedgcomb@edgcomb-law.com

cc: Ms. Jerelean Johnson, USEPA (By U.S. Mail)
Patrick Pulupa, Esq., Office of Chief Counsel, State Water Resources Control Board

Exhibit 26

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TECHNICAL REPORTING ORDER R5-2009-0871
CALIFORNIA WATER CODE SECTION 13267
FOR

**MOUNT DIABLO MERCURY MINE
CONTRA COSTA COUNTY**

This Order is issued to Kennametal Inc., (hereafter referred to as Discharger) pursuant to California Water Code (CWC) section 13267, which authorizes the Executive Officer of the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board or Board) to issue Orders requiring the submittal of technical reports, and CWC section 7, which authorizes the delegation of the Executive Officer's authority to a deputy, in this case the Assistant Executive Officer.

The Assistant Executive Officer finds:

BACKGROUND

1. The Mount Diablo Mercury Mine (Mine Site) is an inactive mercury mine, located on approximately 109 acres on the northeast slope of Mount Diablo in Contra Costa County. Acid mine drainage containing elevated levels of mercury and other metals is being discharged to a pond that periodically overflows into Horse and Dunn Creeks. Further investigation is required to assess the extent of pollution discharged from the Mine Site and to evaluate remedial options.
2. Presently, the Mine Site consists of an exposed open cut and various inaccessible underground shafts, adits, and drifts. Extensive waste rock piles and mine tailings cover the hill slope below the open cut, and several springs and seeps discharge from the tailings-covered area. Three surface impoundments at the base of the tailings capture most spring flow and surface runoff. However, during winter, the ponds routinely spill into Horse and Dunn Creeks, which drain to the Marsh Creek watershed.
3. Section 303(d) of the Federal Clean Water Act requires states to identify waters not attaining water quality standards (referred to as the 303(d) list). Marsh Creek has been identified by the Central Valley Water Board as an impaired water body because of high aqueous concentrations of mercury.

OWNERSHIP AND OPERATOR HISTORY

4. Jack and Carolyn Wessman have owned the Mine Site from 1974 to the present. The Wessmans have made some improvements to reduce surface water exposure to tailings and waste rock, including the construction of a cap over parts of the tailings/waste rock

piles. Although these improvements have been made without an engineering design or approved plan, these improvements may have reduced some of the impacts from the Mine Site. However, discharges that contain elevated mercury levels continue to impact the Mine Site and site vicinity.

5. Bradley Mining Company operated the Mine Site from 1936 to 1947, producing around 10,000 flasks of mercury. During operations Bradley Mining Company developed underground mine workings, discharged mine waste rock, and generated and discharged mercury ore tailings.
6. The U.S. Department of the Interior created the Defense Minerals Exploration Administration (DMEA) out of the Defense Minerals Agency in 1951. The DMEA was created to provide financial assistance to explore for certain strategic and critical minerals. The DMEA contracted with private parties to operate the Mine Site under cost-sharing agreements from 1953 to 1954. The initial cost sharing was with the Ronnie B. Smith Trust, which implemented a partnership formed by Jene Harper and James Dunnigan. Although it is unclear whether the mine was operated under the DMEA contract, the Smith partnership produced approximately 102 flasks of mercury. John L. Jonas and John E. Johnson assumed the DMEA contract in 1954, Jonas and Johnson produced 21 flasks of mercury.
7. The Cordero Mining Company operated the Mine Site from approximately 1954 to 1956, and was responsible for sinking a shaft, driving underground tunnels that connected new areas to pre-existing mine workings, and discharging mine waste. The amount of mercury production from this time period is unknown. The United States Environmental Protection Agency (USEPA), Region IX, named Sunoco Inc. a responsible party for Mount Diablo Mercury Mine in the Unilateral Administrative Order for the Performance of a Removal Action, USEPA Docket No. 9-2009-02, due to its corporate relationship to the Cordero Mining Company.
8. Nevada Scheelite Company, a subsidiary of Kennametal Inc., operated at the Mount Diablo Mercury Mine in 1956. The extent of operations and the amount of production for this period is unknown. However, discharges have occurred from runoff from the mine waste piles and likely springs associated with the mine working.
9. Victoria Resources Corp., now Victoria Gold Corp., owned the Mount Diablo site from 1960 to 1969. The extent of operations and the amount of production for this period is unknown. However, discharges have occurred from runoff from the mine waste piles and likely springs associated with the mine working.
10. The Guadalupe Mining Company owned the Mine Site from 1969 to 1974. The extent of operations and amount of production for this period is not known. However, discharges have occurred from runoff from the mine waste piles and likely springs associated with the mine working.

LEGAL PROVISIONS

11. The Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, 4th Edition* (Basin Plan) designates beneficial uses of the waters of the State, establishes water quality objectives (WQOs) to protect these uses, and establishes implementation policies to implement WQOs. The designated beneficial uses of Marsh Creek, which flows into Sacramento and San Joaquin Delta are domestic, municipal, industrial and agricultural supply.

12. CWC section 13267 states, in part:

(b)(1) In conducting an investigation, the regional board may require that any person who ... is suspected of having discharged ... waste within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

Evidence in the files of the Central Valley Water Board show that the Nevada Scheelte Company, a subsidiary of the Discharger, operated at the Mine Site, and likely discharged waste within the Central Valley Region. The Central Valley Water Board requires a technical report detailing the activities which the Nevada Scheelte Company engaged in at the Mine Site to determine whether the Discharger has liability for the cleanup of the Mine Site. Cleanup of the Mine Site will ensure protection of waters of the state, and will assist the Board in fulfilling its mission to protect public health and the environment.

13. CWC section 13268 states, in part:

(a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267 ... or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.

As described above, failure to submit the required reports to the Central Valley Water Board according to the schedule detailed herein may result in enforcement action(s) being taken against you, which may include the imposition of administrative civil liability pursuant to CWC section 13268. Administrative civil liability of up to \$1,000 per violation per day may be imposed for non-compliance with the directives contained herein. The

Board may also refer the matter to the California Attorney General for judicial enforcement.

IT IS HEREBY ORDERED that, pursuant to California Water Code section 13267, the Discharger shall submit, **by 1 February 2010**, a report describing the extent of the Discharger's and/or the Discharger's subsidiary's activities at the Mine Site. This must, at a minimum, include the following:

- a. Period of ownership of the Mine Site, with references to the deeds by which the Discharger and/or the Discharger's subsidiary acquired any property interest in the Mine Site and/or alienated any property interest the Mine Site. If the property was leased, or the Discharger or the Discharger's subsidiary only operated the Mine Site, please provide a summary of the relevant records.
- b. The legal relationship between the Discharger and the subsidiary, relative to environmental obligations at the Mine Site.
- c. All claims and mineral rights obtained.
- d. A summary of any above ground and underground mining. This shall include the placement of any overburden, raw ores, spent processed ores or any other solid material and liquid discharges/flow from the adit or any pumping from the mine shafts.
- e. A summary of any grading or earthwork done at the site, such as site preparation for mining, overburden removal, and stormwater runoff controls.
- f. Whether the Discharger and/or the Discharger's subsidiary operated the processing facilities. If either operated the processing facilities, provide information summarizing the time period under which the processing facilities operated and the amount and type of product produced.

The report shall be accompanied by a signature block with the following statement included above it:

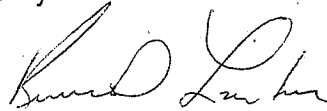
"I certify, under penalty of perjury of the laws of the State of California, that the contents of this report are true and complete."

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), the petition must be received by the State Water Board by 5:00 p.m. on the next business day.

Copies of the law and regulations applicable to filing petitions may be found on the Internet at:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality
or will be provided upon request.

This Order is effective upon the date of signature.

Order by:



KENNETH LANDAU, Assistant Executive Officer

1 December 2009

(Date)

Exhibit 27

STATE OF CALIFORNIA
GOODWIN J. KNIGHT, Governor
DEPARTMENT OF NATURAL RESOURCES
DeWITT NELSON, Director

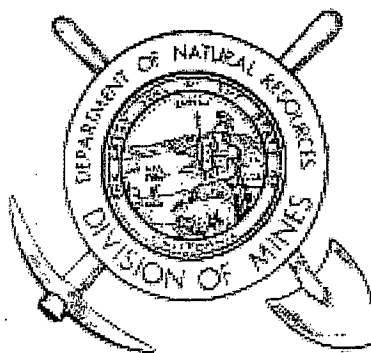
DIVISION OF MINES
FERRY BUILDING, SAN FRANCISCO 11
GORDON B. OAKESHOTT, Chief

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NO. 4

CALIFORNIA JOURNAL
OF
MINES AND GEOLOGY



Price \$1.00

Mercury (Quicksilver)

Occurrences of the mercury minerals, cinnabar and metacinnabar, have been noted in the Franciscan rocks of Mount Diablo. The only commercial deposit of mercury in the area has been exploited at the Mount Diablo mine.

↙ *Mount Diablo Mine (Rhyno)*. Location: E₂ Sec. 29, T. 1 N., R. 1 E., consisting of about 100 acres on the northeast slope of the North Peak of Mount Diablo about 4 miles southeast of Clayton. Ownership: Mount Diablo Quicksilver Co., Ltd., Vic Blomberg, President, P. O. Box 133, Clayton, California.

The geology of the Mount Diablo area was described in considerable detail by Taff (1935). He showed that the central core of the mountain, covering about 20 square miles, is composed of sedimentary (sandstone and shale), igneous (diabase, basalt, and gabbro), and metamorphic rocks (serpentine, schists and meta-chert) of the Franciscan formation of Jurassic (?) age. This central core is surrounded by later sedimentary rocks ranging from Cretaceous to Pliocene age totaling 35,000 feet in thickness. Taff believed that the core of Franciscan rocks was squeezed upward through the cover of post-Franciscan rocks during the Quaternary period. This type of structure is known as a 'piercement' and examples have been noted at other localities in the Coast Ranges. The mercury minerals occur in the sheared contact zone between the Franciscan sedimentary rocks and the intrusive serpentine especially where the serpentine has been subsequently altered to silica-carbonate rock.

A report on the geology of the Mount Diablo mine was made by Ross (1940). Here, the Franciscan strata occupies the footwall and dips about 45° northeastward. Shear zones along the contact between the Franciscan rocks and the overlying serpentine control the distribution of the ore. Minor fractures normal to the shear zones have exercised local control over mineral deposition.

The Mount Diablo mine is distinctive in that metacinnabar, the black sulfide of mercury, is one of the principal ore minerals. This mineral is common at many mercury mines but is seldom present in sufficient quantity to be ore. Cinnabar is the other ore mineral. Minerals also found in the mine are marcasite, pyrite, quartz, chalcedony, carbonates (dolomite and calcite), chromite, nickel silicate, iron sulfates, and epsomite.

The serpentine mass explored in the mill workings was mostly altered to silica-carbonate rock. It averaged about 200 feet long, measured from 50 to 100+ feet thick, and extended at least 400 feet on the dip of N. 50° E.

Regarding the origin of the mineral deposits, Ross states:

The lodes of the Mount Diablo district appear to have been deposited from hot waters that derived their metallic constituents from distant magmatic sources. Deposition took place in successive stages relatively close to the surface and in geologically recent time. It was confined to zones of crushing and shearing that served as channels for the rising solutions and provided adequate open spaces for deposition of the sulphides. . . . The most distinctive characteristics of the Mount Diablo district are the relative abundance of metacinnabar, sulphates, and gases. In the Mount Diablo area the rock is perhaps more extensively crushed and the amount of open space that has survived mineralization is even greater than in other districts. These distinctive features are all in accord with the concept that the lodes of

the Mount Diablo district formed close to the surface and more recently than many of the others in the Coast Ranges. This statement does not necessarily imply that they belong to a different period of ore deposition.

Deposits thus formed are shallow as compared with many kinds of metalliferous lodes, but the vertical range in which they may occur is far greater than that yet explored in the Mount Diablo district. Ore shoots may have originally formed at intervals through a vertical distance of hundreds or more, probably thousands of feet, and the deposits in this district are so recent geologically that the depth of erosion since mineralization probably has not been great. A more potent factor in respect to practical limits of depth is the fact that ore shoots are so small and so irregularly distributed that their positions are difficult to predict. The relatively light load under which the lodes were formed is in part responsible for these conditions.

The warm springs near the Mount Diablo mine and those near other quicksilver mines may represent dying stages of the hot-spring activity that produced the mineral deposits. The gases that still circulate through the lodes are likewise related to hot-spring processes. It does not follow, however, that either modern hot-spring water nearby or gases within the lodes have the same composition as the solutions from which the ore minerals were deposited. The presence of both pyrite and marcasite and of both cinnabar and metacinnabar shows clearly that changes in the character of the solutions occurred while mineralization was in progress. Other such changes have surely occurred since it ceased.

It seems clear that nearly all of the sulphide minerals are products of the original mineralization, deposited from ascending water. The metacinnabar is earlier than much or all of the cinnabar. The cinnabar, which is the more stable form of quicksilver sulphide, may have formed in part by intension from the previously crystallized metacinnabar. At all events, it seems clear that the metacinnabar in the crystalline aggregates of botryoidal form is not a supergene product, as this mineral is commonly supposed to be. Chemical data, recently summarized by Dreyer (1940) show that metacinnabar may be formed from rising solutions in an acid environment and may invert into cinnabar.

The presence of cinnabar on the northeastern slope of Mount Diablo was known since boyhood to the oldest Indians in the area and was used by them in preparation for tribal ceremonies and war-like adventures. An early account (Mining and Scientific Press, 1865) states that the deposit was located about 1863 by a Mr. Welch who sank a 35-foot shaft to intersect the ore at depth, and that both native mercury and cinnabar could be obtained by panning the soil removed in this work. Locations were subsequently made both north and south of the original claim and a placer location was made at a lower elevation where both mercury and cinnabar were recovered by panning.

A short period of production occurred from 1875 to 1877 but the exact quantity produced is unknown. An old report (Ireland 1888) states "it is said to have produced 85 flasks of quicksilver per month". Judging by the size of the dumps, however, subsequent operators have expressed doubt that production was maintained at this rate for any appreciable time. Consequently we have tentatively credited this period with a total production of 1000 flasks.

Except for sporadic efforts the mine lay idle until 1930 when it was reopened by the Mount Diablo Quicksilver Mining Company who made a small production in 1930. In December 1930 the Mt. Diablo Quicksilver Co., Ltd., was organized under the laws of the state of Nevada to acquire the property and to develop the mine under lease royalty arrangements with operating companies. Some exploration work was done in 1931 and a small production was made in 1932 by treating the ore in a 7-tube retort. C. W. Erickson operated the mine during the first part of 1936 and installed a rotary furnace to treat the ore. The first major lessee was the Bradley Mining Company, San Francisco, who began operating the mine in the latter part of 1936.

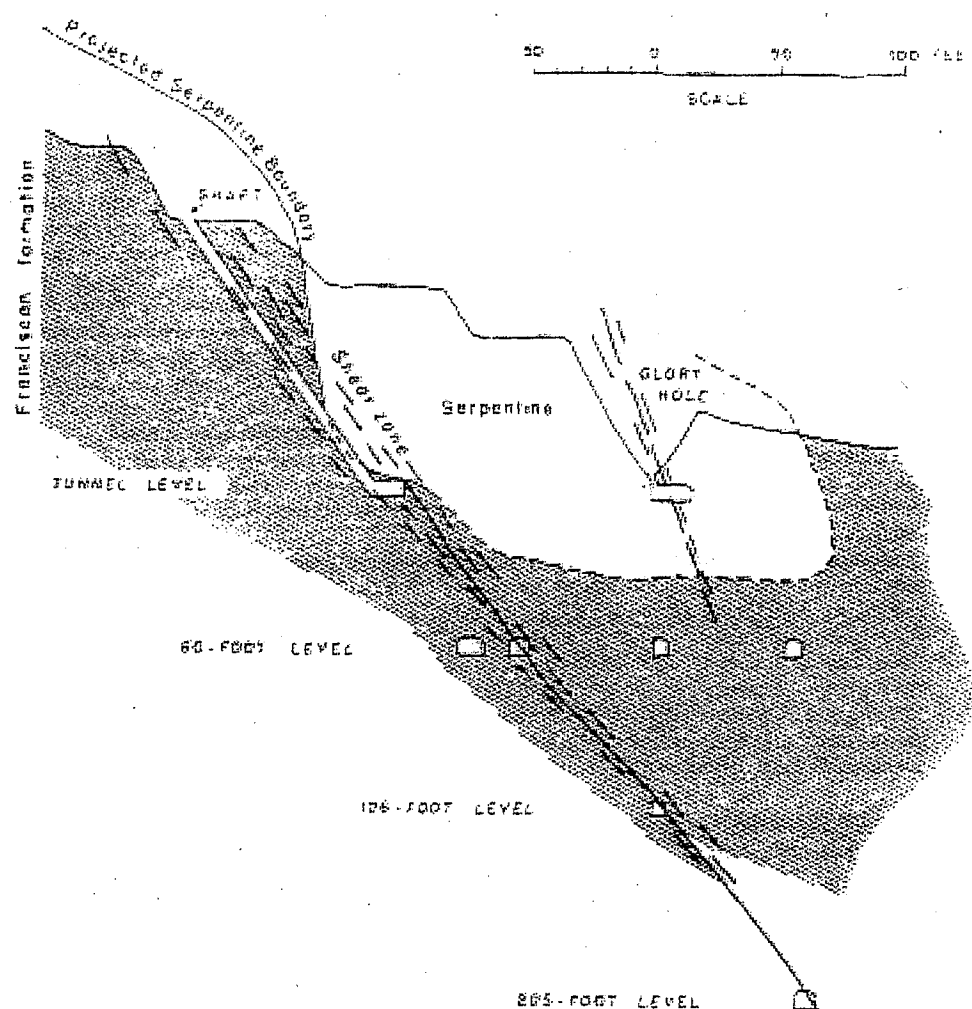


FIGURE 2. Section through Mill workings, Mt. Diablo mercury mine (from U. S. Geological Survey Bull. 922-S, p. 48).

The development of the deposit has been localized in two areas: the Rhyne-Jones and the Mill workings. The Rhyne-Jones area (about 1500 feet west of the millsite) was the locus of the earliest underground mining. This work included the Rhyne and the Jones tunnels, consisting of about 1200 feet of adits and drifts, which explored a breccia zone trending northwestward. Some mining was done by the Bradley Mining Company in the Rhyne-Jones area. Most of their mining however was concentrated on the shear zone at the Mill workings which had been ignored or overlooked in earlier work.

Mill workings were opened or extended in 1896 and the surface excavations eventually included 4 benches and a glory hole. An adit with portal below the mill provided entry to the underground workings. Three lower levels at 126, 160, and 205-foot points were reached by winzes. The workings of the mine, including the surface cuts, extended through a vertical distance of about 500 feet and aggregated about 4000 linear feet. Stopes averaged about 20 feet in width and extended from 100 to 150 feet in length.

The Bradley Mining Company produced mercury from 1936 to 1946 inclusive. As the termination of World War II approached, a decline in the price of mercury began which eventually halted the profitable mining of the metal. Shortly after the mining of mercury ore ended in 1946, crushers were installed to produce crushed rock from silicified Franciscan sandstone. The plant was in continuous operation for about 8 months but competition from more favorably located plants forced cessation of this operation. Production of crushed rock in March 1951 was on an intermittent basis. No mercury production was made from 1947 to 1951 and the company surrendered the lease in the latter year. Some operating data covering the productive period of the mine was compiled by the company and is presented in table 4.

The price of mercury zoomed upward in the latter part of 1950 when war broke out on the Korean peninsula. About the middle of 1951 the mine was leased to Ronnie B. Smith, Dallas, Texas. Operations were concentrated in the open pit at the Mill workings. Two horseshoe-shaped benches with 30-foot faces were mined using a diesel shovel with a 1-yard dipper and a Caterpillar loader. The ore was loaded to 2 Euclid dump trucks for the short haul to the mill. The ore was "burned" in the rotary furnace and condenser soot was treated in a D-retort. Twelve men were employed.

As a result of the work during 1951-1952 and its past production record, the U. S. Government on June 5, 1953 granted the mine a Defense Minerals Exploration loan in the amount of \$125,000. This contract called for underground exploration beneath the mill pit with the hope of finding a mineable ore body at greater depth in the shear zone.

A 40-foot headframe, carrying a 5-foot sheave strung with a $\frac{1}{2}$ -inch cable, was erected and a 40-horsepower hoist was installed. An exploratory, 2-compartment shaft ($4\frac{1}{2}$ by $8\frac{1}{2}$ feet in the clear) was sunk on the north side of the pit. At a point 300 feet below the shaft collar, a 5 by 7-foot drift was headed southwestward toward the shear zone which lay at an estimated distance of 120 feet.

In January 1954 Smith assigned his lease to J. L. Jonas and J. E. Johnson. Shortly thereafter the new lessee encountered underground operating difficulties owing to the presence of gas (hydrogen sulfide, sulfur dioxide and methane). The mine was closed and remained idle during the remainder of the year.

In February 1955 the Cordero Mining Company, Palo Alto, obtained the lease and completed the exploration contract which called for 910 feet of crosscuts and drifts on the 300-foot level. It was reported that four leads were uncovered and a small tonnage of 3- to 7-pound ore was found. The showings were not considered sufficient to warrant farther operation by the company and the lease was terminated. No certification of discovery was made by the Defense Minerals Exploration Administration.

In 1956 the Nevada Scheelite Company leased the mine and installed a deep-well pump (550 gallons per minute) to remove the water which had risen to a point 112 feet below the collar of the shaft. Since the down-stream ranchers objected to the discharge of acid mine water into the creek this work was suspended. Attention was then directed

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Table 3. Production and costs, *W. B. Bando mine, 1936-1946.*

	Flasks	Pounds of mercury	Dry tons of ore	Pounds of mercury per ton of ore	Operating cost	Average California price per flask	Operating cost per flask	Operating cost per ton of ore	All cost	Total cost per flask	Total cost per ton of ore
1936	42	1,472	344	5.0	\$8,311	\$27	\$150	\$0.44	\$10,470	\$24.4	\$29.4
1937	304	23,104	2,725	8.2	44,260	84	145	10.30	61,745	203	22.7
1938	1,424	105,472	8,850	12.3	85,355	70	60	4.00	91,673	64	10.3
1939	1,424	105,472	12,403	15.0	94,530	98	67	7.90	109,717	75	8.9
1940	1,216	92,410	10,003	4.9	110,450	170	80	5.80	129,001	100	6.4
1941	1,003	114,405	19,204	6.0	148,282	170	98	7.70	160,531	137	9.4
1942	1,317	101,812	19,411	5.2	140,167	185	107	7.90	147,629	110	7.0
1943	1,312	98,712	16,670	6.0	140,247	154	114	6.00	160,622	129	10.2
1944	403	27,408	7,418	5.0	57,441	113	117	7.70	58,223	108	7.2
1945	502	25,152	8,808	4.3	60,230	138	138	7.90	84,823	107	9.4
1946	918	63,768	12,408	5.7	112,210	92	122	6.30	114,828	133	9.4
Total	10,455	704,080	120,464	6.3	\$1,017,807	\$1.25	\$97	\$8.10	\$1,180,407	\$108	\$9.9
Average											

* Data from Bradley Mining Co.
& California Division of Mines.

to the open pit where some exploration was done using wagon drills. A small tonnage of retort-grade ore was developed. Since this was not sufficient to satisfy the requirements of the company the lease was relinquished.

No production of mercury was reported during or since completion of the DMEA contract. The mine has remained idle from 1956 to date (July 1958) and the shaft and underground workings have filled with water. The flow of water on the 300-foot level is reported to be 150 gallons per minute. During the stormy winter season the underground water can be diverted into the creek without damage to downstream neighbors. During the summer and period of low-creek flow however, the mine water must be pumped to surface sumps and aerated or treated with lime before diversion.

The mine ore transfer system consists of a 50-ton coarse mine-ore bin, feeding the ore to a 10 by 12-inch Pacific jaw crusher, dropping the minus 14-inch crushed ore to a 125-foot conveyor belt which conveys and deposits it in a 90-ton fine ore bin.

The ore treatment plant consists of a 42-foot Gould rotary counter-current furnace of 50-ton per day capacity. It's equipped with a dust collector, condensers, exhaust fan and stack. Auxiliary equipment includes: D-retort, mud machine, 30 cubic foot plant compressor, 210-foot air compressor (diesel driven), 15,500-gallon fuel storage tank, water well system. Buildings include a bottling and flask storage house, blacksmith shop, equipment shop, warehouse, 7-room bunkhouse, 6-room cookhouse, and 3 residence houses.

Total reported production throughout the entire life of the mine has been slightly over 11,000 flasks.

Mineral Springs

The medicinal value of mineral waters has been recognized for centuries. During the 19th century California demonstrated that her mineral springs were as valuable and efficacious as any in the world. Health resorts that were established at the site of the most accessible and salubrious springs enjoyed great vogue until the automobile became a common means of transportation about 1920. Thereafter the population grew more restive and the popularity of the spas declined.

Most of the springs of Contra Costa County were described by Waring in 1915. The Twenty-seventh Report of the State Mineralogist contains a summary of Waring's description and some data on the waters of Alhambra, Byron, Ferndale, Pine Canyon and Sulfur Springs.

Mineral water has been produced almost continuously in Contra Costa County from 1896 to 1951. Data on the quantity and value of mineral water bottled for sale are included in the county statistics from 1896 to 1946 inclusive. Since 1951 Alhambra Springs south of Martinez has been maintained in stand-by condition but has made no production. Oak Springs water has not been usable since 1951 owing to the encroachment of local inhabitants.

A table summarizing data on the springs which have produced water for sale in the county will be found at the end of this report.

Exhibit 28



Linda S. Adams
Secretary for
Environmental
Protection

California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair

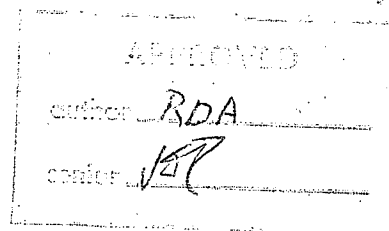
11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>



Arnold
Schwarzenegger
Governor

30 October 2009

Lisa A. Runyon, Senior Counsel
Sunoco, Inc.
1735 Market Street, Ste. LL
Philadelphia PA 19103-7583



FILE COPY

RESPONSE TO DIVISIBILITY PAPER, MOUNT DIABLO MERCURY MINE, CONTRA COSTA COUNTY

Staff of the Central Valley Regional Water Quality Control Board (Board) have reviewed the "Divisibility Position Paper, Mt. Diablo Mercury Mine, Sunoco Inc as Related to Cordero Mining Company" (Divisibility Paper) submitted on Sunoco/Cordero's behalf by The Source Group, Inc. The Divisibility Paper contends that there is a reasonable technical basis for the Board to apportion liability for the investigation and/or cleanup of the Mount Diablo Mercury Mine (Site). The Divisibility Paper concludes that, because there is a reasonable basis to apportion liability, the Board should limit Sunoco/Cordero's liability to the area near the Defense Minerals Exploration Administration (DMEA) shaft, where most of Cordero Mining Company's work was done.

Board staff disagree that there is a reasonable basis for apportioning liability. The contamination present at the Site is not susceptible to any rational means of division. The discharge of polluted water from the Site occurs after water interacts with mine waste, some of which was generated by Cordero, and some of which was generated by other responsible parties. The 790 feet of underground tunnels constructed by Cordero connect with, and thus contribute contaminated water to, the earlier underground tunnels via the Main Winze. The 165-foot level portal, a part of the earlier tunnels that connects to the Main Winze, is believed to be a major contributor of acid mine drainage. It is impossible for the Board to determine the proportion of pollutants that the water picks up through its interactions with the mine features that Cordero constructed, relative to the proportion that it picks up through its interactions with mine features constructed by other responsible parties. Indeed, even if such proportion could be calculated, it may have little to no relation to the ultimate cost of investigation and/or remediation.

The Divisibility Paper contends that the waste rock generated by Cordero was either placed back in the shaft or discharged in the My Creek drainage, but this fact is not borne out by the evidence in the Board's files. No evidence in the files indicates where the waste rock was discharged. The 790 feet of tunnels would generate too much waste to fit back into the shaft, and the descriptions of waste rock in the My Creek drainage are consistent with waste rock from a surface mine, not from underground mine tunnels.

Board staff maintain that there is no reasonable basis to apportion liability, and therefore, pursuant to State Board water quality decisions regarding apportionability, Cordero/Sunoco's liability for the site remains joint and several.

If you have any questions concerning this matter, please contact Ross Atkinson at (916) 464-4614 or via email at ratkinson@waterboards.ca.gov.

VICTOR IZZO

Senior Engineering Geologist

Title 27 Permitting and Mines Unit

cc: Patrick Palupa, Office of the Chief Counsel, SWRCB, Sacramento
California Dept of Parks and Recreation, Bay Area Dist., San Francisco
Jerelean Johnson, Site Assessment, Superfund Div. USEPA Region 9, San Francisco
Larry Bradfish, Asst. Regional Counsel, USEPA Region 9, San Francisco
Janet Yocum, On-Scene Coordinator, USEPA Region 9, San Francisco
R. Mitch Avalon, Contra Costa County Flood Control, Martinez
William R. Morse, Sunoco, Inc. Philadelphia, PA
David Chapman, Edgcomb Law Group, San Francisco.
Paul Horton, The Source Group, Inc. Pleasant Hill

Exhibit 29

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TECHNICAL REPORTING ORDER R5-2009-0869
CALIFORNIA WATER CODE SECTION 13267
FOR

**MOUNT DIABLO MERCURY MINE
CONTRA COSTA COUNTY**

This Order is issued to Jack and Carolyn Wessman; the Bradley Mining Co.; the U.S. Department of Interior; and Sunoco, Inc (hereafter collectively referred to as Dischargers) pursuant to California Water Code section 13267, which authorizes the Executive Officer of the California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board or Board) to issue Orders requiring the submittal of technical reports, and CWC section 7, which authorizes the delegation of the Executive Officer's authority to a deputy, in this case the Assistant Executive Officer. This Order revises and replaces a previous Order issued on 30 June 2009.

The Assistant Executive Officer finds:

BACKGROUND

1. The Mount Diablo Mercury Mine (Mine Site) is an inactive mercury mine, located on approximately 109 acres on the northeast slope of Mount Diablo in Contra Costa County. Acid mine drainage containing elevated levels of mercury and other metals is being discharged to a pond that periodically overflows into Horse and Dunn Creeks. Further investigation is required to assess the extent of pollution discharged from the Mine Site and to evaluate remedial options. The Site Investigation and Remedial Option Evaluation are needed steps that must be taken to restore the impacted waters of the state and to protect public health and the environment.
2. Presently, the Mine Site consists of an exposed open cut and various inaccessible underground shafts, adits, and drifts. Extensive waste rock piles and mine tailings cover the hill slope below the open cut, and several springs and seeps discharge from the tailings-covered area. Three surface impoundments at the base of the tailings capture most spring flow and surface runoff. However, during winter, the ponds routinely spill into Horse and Dunn Creeks, which drain to the Marsh Creek watershed.
3. Section 303(d) of the Federal Clean Water Act requires states to identify waters not attaining water quality standards (referred to as the 303(d) list). Marsh Creek has been identified by the Central Valley Water Board as an impaired water body because of high aqueous concentrations of mercury.

OWNERSHIP AND OPERATOR HISTORY

4. Jack and Carolyn Wessman have owned the Mine Site from 1974 to the present. The Wessmans have made some improvements to reduce surface water exposure to tailings and waste rock, including the construction of a cap over parts of the tailings/waste rock piles. Although these improvements have been made without an engineering design or approved plan, these improvements may have reduced some of the impacts from the Mine Site. However, discharges that contain elevated mercury levels continue to impact the Mine Site and site vicinity.
5. Bradley Mining Company operated the Mine Site from 1936 to 1947, producing around 10,000 flasks of mercury. During operations Bradley Mining Company developed underground mine workings, discharged mine waste rock, and generated and discharged mercury ore tailings.
6. The U.S. Department of the Interior created the Defense Minerals Exploration Administration (DMEA) out of the Defense Minerals Agency in 1951. The DMEA was created to provide financial assistance to explore for certain strategic and critical minerals. The DMEA contracted with private parties to operate the Mine Site under cost-sharing agreements from 1953 to 1954. The initial cost sharing was with the Ronnie B. Smith Trust, which implemented a partnership formed by Jene Harper and James Dunnigan. Although it is unclear whether the mine was operated under the DMEA contract, the Smith partnership produced approximately 102 flasks of mercury. John L. Jonas and John E. Johnson assumed the DMEA contract in 1954, Jonas and Johnson produced 21 flasks of mercury.
7. The Cordero Mining Company operated the Mine Site from approximately 1954 to 1956, and was responsible for sinking a shaft, driving underground tunnels that connected new areas to pre-existing mine workings, and discharging mine waste. The amount of mercury production from this time period is unknown. The United States Environmental Protection Agency (USEPA), Region IX, named Sunoco Inc. a responsible party for Mount Diablo Mercury Mine in the Unilateral Administrative Order for the Performance of a Removal Action, USEPA Docket No. 9-2009-02, due to its corporate relationship to the Cordero Mining Company.
8. Nevada Scheelite Company, a subsidiary of Kennametal Inc., operated at the Mount Diablo Mercury Mine in 1956. The extent of operations and the amount of production for this period is unknown. However, discharges have occurred from runoff from the mine waste piles and likely springs associated with the mine working.
9. Victoria Resources Corp., now Victoria Gold Corp., owned the Mount Diablo site from 1960 to 1969. The extent of operations and the amount of production for this period is unknown. However, discharges have occurred from runoff from the mine waste piles and likely springs associated with the mine working.

10. The Guadalupe Mining Company owned the Mine site from 1969 to 1974. The extent of operations and amount of production for this period is unknown. However, discharges have occurred from runoff from the mine waste piles and likely springs associated with the mine working.

LEGAL PROVISIONS

11. The Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, 4th Edition* (Basin Plan) designates beneficial uses of the waters of the State, establishes water quality objectives (WQOs) to protect these uses, and establishes implementation policies to implement WQOs. The designated beneficial uses of Marsh Creek, which flows into Sacramento and San Joaquin Delta are domestic, municipal, industrial and agricultural supply.

12. CWC section 13267 states, in part:

(b)(1) In conducting an investigation, the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or, discharging, or who proposes to discharge waste within its region . . . shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

As described in Findings Nos. 4 – 7, the Dischargers are named in this Order because all have discharged waste at the Mine Site through their actions and/or by virtue of their ownership of the Mine Site. The reports required herein are necessary to formulate a plan to remediate the wastes at the Mine Site, to assure protection of waters of the state, and to protect public health and the environment.

13. CWC section 13268 states, in part:

(a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267 . . . or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.

(c) Any person discharging hazardous waste, as defined in Section 25117 of the Health and Safety Code, who knowingly fails or refuses to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or who knowingly falsifies any information

provided in those technical or monitoring program reports, is guilty of a misdemeanor, may be civilly liable in accordance with subdivision (d), and is subject to criminal penalties pursuant to subdivision (e).

(d)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (c) in an amount which shall not exceed five thousand dollars (\$5,000) for each day in which the violation occurs.

As described above, failure to submit the required reports to the Central Valley Water Board according to the schedule detailed herein may result in enforcement action(s) being taken against you, which may include the imposition of administrative civil liability pursuant to CWC section 13268. Administrative civil liability of up to \$5,000 per violation per day may be imposed for non-compliance with the directives contained herein.

IT IS HEREBY ORDERED that, pursuant to California Water Code section 13267, the Dischargers shall submit the following technical reports:

1. **By 1 March 2010**, submit a *Mining Waste Characterization Work Plan* (hereafter *Characterization Plan*) for the Mine Site. The Characterization Plan shall be a plan to assess both the nature and extent of mining waste at the Mine Site, and the potential threat that this mining waste poses to water quality and/or human health. The Characterization Plan shall describe the methods that will be used to establish background levels for soil, surface water, and ground water at the site, and the means and methods for determining the vertical and lateral extent of the mining waste.

The Characterization Plan shall also address slope stability of the Mine Site, and shall assess the need for slope design and slope stability measures to minimize the transport of mining waste-laden soils to surface water and ephemeral streams.

2. **By 1 September 2010**, submit a *Mining Waste Characterization Report* (hereafter *Characterization Report*), characterizing the data gathered pursuant to the investigation described in the Characterization Plan. The Characterization Report shall include:
 - a. A narrative summary of the field investigation;
 - b. A section describing background soil concentrations, mining waste concentrations, and the vertical and lateral extent of the mining waste;
 - c. Surface water and ground water sampling results;
 - d. A section describing slope stability and erosion potential and recommendations for slope stabilization;
 - e. An evaluation of risks to human health from site conditions, and;
 - f. A work plan for additional investigation, if needed, as determined by Board staff. If no additional investigation is needed, this report shall be the Final Characterization Report.

3. Within **90 days** of staff concurrence with the Characterization Report, submit a *Site Remediation Work Plan* (hereafter *Remediation Plan*) for the site. The Remediation Plan shall describe remediation activities to clean up or remediate the mining waste either to background concentrations, or to the lowest level that is technically and economically achievable. The Remediation Plan shall also address long-term maintenance and monitoring necessary to confirm and preserve the long-term effectiveness of the remedies. The potential remediation activities shall comply with all applicable WQOs in the Basin Plan. The Remediation Plan shall also include:
 - a. An evaluation of water quality risk assessment:
 - b. A human health risk assessment:
 - c. A time schedule to conduct the remediation activities.

REPORTING

4. When reporting the data, the Dischargers shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to illustrate clearly the compliance with this Order.
5. Fourteen days prior to conducting any fieldwork, submit a Health and Safety Plan that is adequate to ensure worker and public safety during the field activities in accordance with California Code of Regulations, title 8, section 5192.
6. As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional or their subordinate and signed by the registered professional.
7. All reports must be submitted to the Central Valley Water Board. Electronic copies of all reports and analytical results are to be submitted over the Internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at <http://geotracker.swrcb.ca.gov>. Electronic copies are due to GeoTracker concurrent with the corresponding hard copy. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Water Board's web site.
8. Notify Central Valley Water Board staff at least five working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), the petition must be received by the State Water Board by 5:00 p.m. on the next business day.

Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

This Order is effective upon the date of signature.

Order by:



KENNETH LANDAU Assistant Executive Officer

1 December 2009

(Date)

Exhibit 30

RECEIVED
SACRAMENTO
CVRWOCB

RDA
Kennametal Inc.
1600 Technology Way | Latrobe, PA 15650 USA
T 724.539.5337 | F 724.539.3839
www.kennametal.com



March 30, 2010

***Via Electronic Mail (ratkinson@waterboards.ca.gov)
and UPS Overnight***

Mr. Ross Atkinson
Associate Engineering Geologist
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive #200
Rancho Cordova, California 95670-6114

**Re: Mount Diablo Mine
Response to Technical Reporting Order #R5-2009-0871**

Dear Mr. Atkinson:

Kennametal Inc. ("Kennametal") has reviewed Technical Reporting Order R5-2009-0871 ("Order") issued by the California Regional Water Quality Control Board, Central Valley Region ("Board") on December 1, 2009 with regard to the Mount Diablo Mercury Mine site located in Contra Costa, California (the "Site"). On January 20, 2010, Kennametal submitted to the Board a written request to extend the time to respond to the Board's Order until April 2, 2010, and the Board approved the request by letter dated January 28, 2010. This letter provides Kennametal's response to the Order.

The Order requested information regarding the activities of Kennametal and/or Nevada Scheelite Company at the Site and requested a "report describing the extent of the Discharger's and/or the Discharger's subsidiary's activities at the Mine Site." Kennametal conducted a careful review of its records, including those obtained from outside storage facilities, and was unable to locate any documents that connected Kennametal to the Site.

According to the records, Nevada Scheelite, Inc. was a Nevada corporation that pursued scheelite mining activities in Nevada, and only in Nevada, until 1951, when it was dissolved. By that time, Kennametal was the owner of all its shares of stock. Thereafter until 1968 or 1969, Kennametal mined scheelite in Nevada for use at its processing facility in Fallon, Nevada. After it discontinued mining, Kennametal purchased scheelite from various places around the world, as it does to this day. At no time would there have been any reason for Kennametal to be interested in mining mercury, in California or anywhere else.

Through its attorneys, Kennametal contacted you for information within the Board's custody or knowledge that connected either Kennametal or Nevada Scheelite Company to the Site. In response, you provided by email on January 20, 2010, an excerpt of the California Journal of Mines and Geology (October 1958) (the "Journal"). Kennametal did not find any information in its records to confirm the information presented in the Journal. As stated above, there was a company called Nevada Scheelite, Inc. that was absorbed into Kennametal in 1951. We can find no records that indicate Kennametal ever had a subsidiary called "Nevada Scheelite Company," nor any other subsidiary that conducted mining operations in California.



I certify, under penalty of perjury of the laws of the State of California, that the contents of this report are true and complete.

Kennametal Inc.

By: Paul J. Ward
Paul J. Ward
Assistant General Counsel